



MEDICAL
UNIVERSITY
OF GDAŃSK
IS PEOPLE

75 YEARS

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CONCEPT AND DEVELOPMENT

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The materials posted on the www.gumed.edu.pl website were used in the preparation of the editorial texts.

PHOTOGRAPHY

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(apart from pages 4, 5, 6, 13 – archive photos;
11, 75, 78, 89, 90, 92, 94, 97, 98, 99, 105, 115 – received photos)

GRAPHIC DESIGN

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ISBN: 978-83-65098-97-9

Gdańsk 2020
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Foreword

The Medical University of Gdańsk is people. It is because of them and with them that the history of the University is continuously unfolding.

Visions of development, scientific achievements, as well as planned investments have their originators and authors. Thanks to their joint effort over the years we can now refer to ourselves as the first medical research university in Poland.

Therefore, the employees, students, alumni and partners of the University became the co-authors of the jubilee publication issued on the occasion of the 75th anniversary of the Medical University of Gdańsk. We invited them to share their memories, reflections and plans for the future. If not for them our history would undoubtedly be much different.

Our tradition. The genesis and inception of the Physician's Academy in Gdańsk

1945

After the Second World War, Gdańsk was again within the Polish borders. Almost a thousand year old city began a new stage of its existence. Rebuilding after the destruction was accompanied by an exchange of residents. The city was populated by the inhabitants of the Eastern Borderlands incorporated into the Soviet republics, including a large group of employees and students of the Stefan Batory University Faculty of Medicine in Vilnius. In their luggage, in addition to personal belongings, they brought extremely valuable items of equipment for laboratories and clinics, faculty documents and scientific aids, everything that was priceless to the medical academy to be set up after the war. The establishment of the Polish medical university in Gdańsk was triggered off by several important factors. The city had the adequate infrastructure necessary to train doctors, dentists and pharmacists, including

hospitals and lecturing buildings. It not only brought considerable prestige but also allowed the Gdańsk region population, dealing with war-inflicted health problems and post-war scarcity, to receive medical care.

Physician's Academy organisational proceedings commenced in the spring of 1945. In the summer the necessary preliminary cleaning and renovation took place in the post-war, ruined buildings and premises of the future Physician's Academy. The future students also took part in the work as the Academic Labour Brigade headed by Alojzy Maciejewski, M.D. *From the hospital grounds, [...] we marched straight down to Aleja Zwycięstwa, singing 'My Pierwsza Brygada' [...]. Professors Hiller and Mozołowski appeared in front of the building and then, in the August sun, we saw the faces of our*

professors for the first time. Professor Hiller smiled happily, but with tears in his eyes; filled with emotion; Professor Mozołowski began to conduct our choir.

In later years, Prof. Stanisław Hiller was a tutor in the Bratnia Pomoc organisation at the Physician's Academy in Gdańsk, very committed to helping his students; Prof. Włodzimierz Mozołowski was the author of numerous sayings, repeated by his students and next generations to this day. He used to say, *A good teacher is one who has students better than himself, and about sensitive everyday matters, if you don't know how to lie, tell the truth.* Both of them were former Stefan Batory University employees, outstanding teachers, intellectual and moral authorities of the Academy' students. Eminent professors such as Michał Reicher, Kornel Michejda, Janina Hurynowiczowa, Sergiusz Schilling Siengalewicz and Ignacy Abramowicz, also came to Gdańsk from Vilnius.

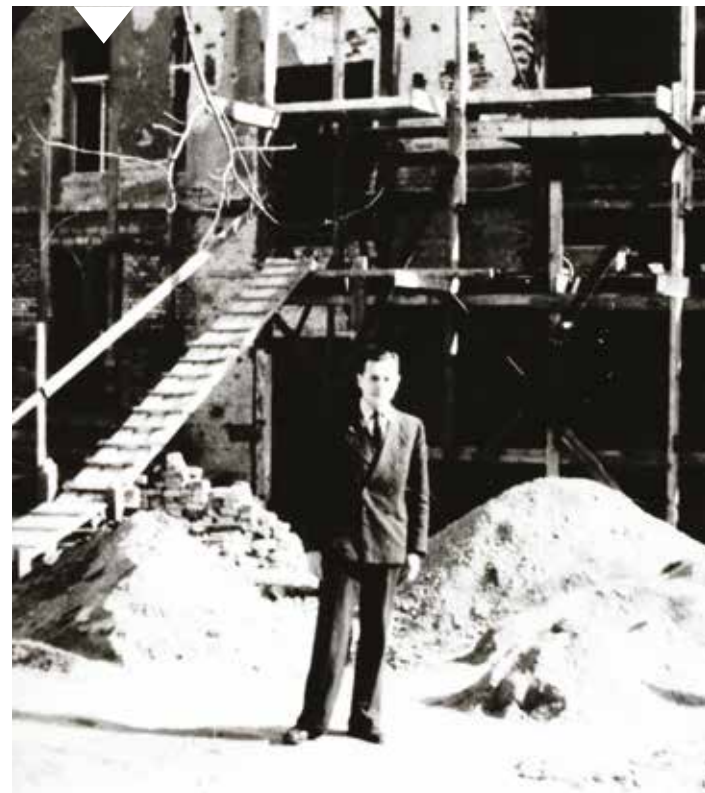
The Physician's Academy in Gdańsk was established by the Decree of the State National Council on 8th October 1945. It is an only a one-page document, however, requiring



[...] Let us now look to the future. Let us look to the present day as the beginning of a long series of next days and years [...]. We want the Academy to be more than just a school that trains practitioners so necessary for the country. We also want to create a workroom for scientific and research work. The Academy is to be not only a distributor of knowledge, but also, as far as possible, a producer of knowledge. Only a university where science thrives can teach really well.

PROF. EDWARD GRZEGORZEWSKI
First Rector of the Physician's Academy in Gdańsk,
inaugural address on 2nd February 1946

tremendous amount of preparation. The former employees of the Stefan Batory University Faculty of Medicine in Vilnius were at their forefront. They sought to shape the newly established Physician's Academy drawing on the best patterns from Vilnius. The Stefan Batory University traditions were maintained by professors, lecturers and students who begun their medical training there. Equally important for the Academy was the activity of the Faculty of Medicine deans with the administrative experience gained at the Stefan Batory University. Classes began in the late autumn of 1945. They required great fortitude, e.g. in terms of working in unheated rooms when temperature dropped below zero in winter or overcoming huge shortages in equipment. The laboratories were lacking everything. Searching and acquiring were ones of the main activities of the department heads. Finding the Prof. Mozołowski's Vilnius centrifuge is an excellent illustration of that. It was a part of the equipment in the Physiological



Prof. Edward Grzegorzewski

Chemistry Laboratory at the Stefan Batory University Faculty of Medicine. Its fate was unknown until it was found among other laboratory equipment in one of the carriages of a westbound German freight train, stopped in Gdynia. The device was used in the Department of Biochemistry for years.

The conditions and other organisational reasons caused that the inauguration ceremony of the academic year 1945/1946 did not take place until 2nd February 1946 in the Old Anatomy Auditorium (today the Prof. Olgierd Narkiewicz Auditorium at the AGN). It was a solemn ceremony, attended by the Physician's Academy employees and students as well as guests which included not only state and church authorities, but also allied countries' delegations. The symbolic gown from the Stefan Batory University in Vilnius, belonging to Prof. Kornel Michejda constituted a link between the tradition of the Vilnius academia and the new Physician's Academy in Gdańsk. In the following years, more gowns were sewn for the university authorities copying the Vilnius model.

The shortage of qualified dentists in the post-war period was as severe as that of general practitioners, surgeons, paediatricians, etc. Therefore, the regulation of the Minister of Health on the establishment of the Faculty of Dentistry at the Physician's Academy in Gdańsk in 1947 is not surprising. A year earlier Prof. Strażewicz from Poznań was asked to help in organising the Faculty of Pharmacy. Although it was established by the same State National Council decree as the Physician's Academy, the acute shortage of staff and premises made it impossible to launch it simultaneously with the Faculty of Medicine.

In the following years, the Physician's Academy became established in organisational terms. Although, the pioneering stage of creating the university, clinics and teaching and research facilities was completed, the academia was well aware of numerous deficiencies and limitations resulting from the political and economic situation. In March 1950, the university changed its Polish name to the Medical Academy, and operated as such until 2009. In the following years, the Academy developed. New units, separate clinics and departments have been created as an organisational expression of the evolution of medicine.

MAREK BUKOWSKI, M.D., PH.D. Museum of the Medical University of Gdańsk

The museum is an incarnation of ideas and dreams that emerged at the university many years ago. I am unable to identify their sources today as they have a long tradition. Many professors and employees spoke of the need to establish an institution which collects memorabilia of the past and documents history. In 2005 the renovation of the so-called Old Anatomy building – today the Atheneum Gedanense Novum – began. Thanks to the then Rector, Prof. Wiesław Makarewicz, the renovation plans allocated the former anatomy lab for a future museum. The exhibition was presented for the first time in 2006; yet, it was housed in the main hall since a part of the building was still closed. It was not until the spring of 2007 that the museum was open for visitors. Initially, it was a part of the Department of the History of Philosophy of Medical Sciences, and in 2010 it became an independent unit with its own regulations.

The museum reveals how the medical school in Gdańsk was established, bringing together a large number of professors, employees and students from Vilnius and how it was modelled on the Faculty of Medicine of the Stefan Batory University in Vilnius. The first deans of our faculty were its employees. Scientific activity which started in Vilnius was continued in Gdańsk as well – Prof. Michał Reicher's school of anatomy, Prof. Stanisław Hiller's Departments of Histology and Embryology, Prof. Włodzimierz Mozołowski's Department of Medical Chemistry (or Biochemistry) and, of course, Prof. Kornel Michejda's research, and then Prof. Zdzisław Kieturakis' school of surgery. We should bear in mind that after the Second World War Gdańsk became a new home for people from almost all corners of the Second Polish Republic. It is essential to remember about these places, people and their experiences during and after the occupation. This is the source of our model of cherishing memory, tradition and heritage, which is appreciated by many universities in Poland.

At the time of its formation, the museum had a small but valuable collection. These items were transferred to the



Department of the History of Medicine thanks to Prof. Zbigniew Machaliński who undertook the difficult task of establishing the museum.

Museum classes, an integral part of the History of Medicine for English Division students, are hosted here. Polish-speaking students come to the museum as well because at least some of the classes organised in the Department of the History of Medicine always take place here.

We cooperate with various university units. The University of the Third Age students' having classes at the museum, and the ABC of the Internet course are the most prominent examples. We teach about the past, the things that the students raised in the age of computers and laptops are completely unaware of. Naturally, the Museum is open to everyone who wants to visit it.

The MUG Museum is growing. On the one hand, this is a success because there are more exhibits. However, limited exhibition and storage space is problematic. There is always room for small items like old stethoscopes or blood pressure monitors, but what about unique medical apparatuses? Preserving these items, especially those made in Poland, entails safeguarding the achievements of the Polish intellectual and technical thought.

Honorary professors and ambassadors

ROMAN KALISZAN
JANINA SUCHORZEWSKA

ASSOC. PROF. JANINA SUCHORZEWSKA, M.D., PH.D., D.SC.

a long-term head of the Department of Anaesthesiology and Intensive Care at the Medical University of Gdańsk

I wanted to be a doctor since I was a child, but I made the final decision to study medicine as a result of what I experienced during the Warsaw Uprising. There, I came across the tragedy of dying people and wonderful doctors who, in those terrible conditions, risking their own lives, were providing help.

During my studies, I met many outstanding, wise and kind professors and lecturers who were not only medical teachers. They taught us respect for everyone and responsibility and imparted their work and ability to pass knowledge to us. They were also teachers of good manners. Prof. W. Mozołowski used to say, *the first one to bow is the one who has better manners*. Those were wonderful times despite difficult learning conditions.

Fate was gracious to me because after my retirement I did not have to observe my university from afar as I worked at the Department of Medical Ethics to 2011. It was a great responsibility because I was to continue the long tradition of ethical reflection in our *Alma Mater*, based on the excellent models of our professors: Tadeusz Kielanowski, Tadeusz Bilikiewicz and Stefan Raszeja. However, the more difficult the



The Medical University of Gdańsk has a unique way of distinguishing its employees in recognition of their outstanding scientific achievements or merits for the development of the university. It awards the title of Aesculapius Gedanensis/Honorary Professor of the Medical University of Gdańsk. A similar distinction existed at the Stefan Batory University in Vilnius from which the Medical University of Gdańsk draws its tradition.

6.06.2018
17.06.2019
28.06.2019

Prof. Wiesław Makarewicz
Prof. Roman Kaliszan (posthumously)
Assoc. Prof. Janina Suchorzewska, M.D., Ph.D., D.Sc.

challenges, the more they stimulate me to act. I needed to become acquainted with bioethics, which today is an interdisciplinary science looking for a basis for solving moral problems in modern medicine and assessing the social consequences of the progress of medical science. The University, which was open to novelties, supported me by establishing the Department of Ethics in 2003 by then Rector, Prof. Makarewicz. At that time, it was the first independent ethics department at a Polish medical university.

It was thanks to the University, where I spent most of my professional life, that I could achieve so much. My work has taught me that improving in our medical profession is

an painstaking, never-ending work on broadening knowledge. In my work, I often received help and understanding in difficult situations from the University's authorities and from many colleagues who were kind to me. Having gained experience as a unit manager, I realised that what mattered in that position was not only knowledge, teaching and organisational skills, but also the ability to lead a team. This is one of the most difficult tasks for a head of a team. My assistant lecturers made me realise that you had to recognise the strengths in each and one of them and plan further development on their basis. They taught me to appreciate the value of each of them. Maybe that is why that team stood with me and by me in all difficult moments.

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I have always taken the view that a university should not award honorary doctorate titles to its own employees. It is other academic centres that should recognise the need to honour a scientist. Therefore, I think it was a good idea to establish the title of Honorary Professor of the MUG. I am extremely pleased and honoured that my work was recognised and became the first laureate.

PROF. WIESŁAW MAKAREWICZ

first Honorary Professor of the Medical University of Gdańsk

HONORIS CAUSA DOCTORATES

1965	Ignacy Abramowicz Jack Adams-Ray Paweł Nikołajewicz Napałkow Michał Reicher
1972	Włodzimierz Mozołowski
1974	Marian Górski Jarosław Iwaszkiewicz
1976	Keith Edwar Halnan Włodzimierz Aleksiejewicz Miniajew Monautchchr Eghbal
1985	Stanisław Byczkowski Robert Gonstantin Tarazi
1987	Zoła Majewska
1988	Ingermar Petersen
1989	Siergiej Iwanowicz Riabow
1991	Henryk Wiśniewski Franklin Harold Epstein
1992	Ignacy Adamczewski Hainz Mittelmeier
1994	Tadeusz Reichstein Alan Roy Katritzky Paolo Bruni
1995	Mirosław Mossakowski Rodolfo Paoletti Mariusz Maciej Żydowo
1998	Shaul G. Massry
1999	Ryszard Jerzy Gryglewski
2000	Wacław Szybalski Peter Sleight Olgierd Narkiewicz
2001	Friedhelm Schreiter
2003	Tadeusz Maliński
2005	Edward J. Johns
2006	Irving W. Wainer
2007	Takashi Wakabayashi
2008	Giuseppe Mancia Harry Bartelink
2009	August Heidland
2010	Hans Lippert Tadeusz Hermann
2011	Michinari Hamaguchi
2012	Zdzisław Wajda
2013	Yvan Vander Heyden
2014	Stefan Raszeja
2015	Jerzy Dybicki Jacek Namieśnik
2016	Abass Alavi Barbara Krupa-Wojciechowska

It was a great honour and a great experience for me to be given the title of Honorary Professor of the MUG, all the more so since I was brought up to respect and have a sense of the important role played by teaching institutions in the society. There are universities at the top of it as schools of the highest rank. After all, through their mission which is scientific work based on the search for and pursuit of the truth, together with the mission of education, they make the highest-ranking intellectual elites in the country. According to tradition, they shape not only minds, but also moral attitudes because they are established to guard universal values. Accepting this title gratefully I had the conviction that it was an expression of appreciation and emphasis on the role of the fields I was able to co-create – anaesthesiology, intensive care and medical ethics.

PROF. BARBARA JERECZEK-FOSSA Professor of Radiation Oncology at the University of Milan, Italy Head of the Department of Radiation Oncology at the European Institute of Oncology in Milan

I am proud that I completed my studies at the Medical University of Gdańsk and I feel honoured because I am also the MUG Ambassador. This is where it all started for me. I am, above all, a physician and this is my primary mission, but I am very lucky in life because I work in three areas: I am a physician, I do research and I teach. However, the axis of my career has been and will always be science. During my studies, every clinical block was a new discovery for me with the last one being oncology. Cancer is a civilisation disease and a very dynamic one. Thus, there is still a great deal of research to be done there, and it appealed to me. Outstanding specialists working at the Department of Oncology and Radiotherapy, Prof. Jacek Jassem or Prof. Marzena Wełnicka-Jaśkiewicz conveyed its value to me and the direction in which oncological research can go and how much

depends on us, the scientists. It was a breakthrough discovery for my clinical future. Practising science opens up horizons in an extraordinary way. At the European Institute of Oncology, where I work, we hold a belief that the treatment is better in centres where science thrives. Science is the constant discovery of something new, and simultaneously it ensures better medical care for patients.

I have been teaching at the University of Milan since the year 2000. The work of an academic physician is extremely interesting for it is a doctor who teaches, creates and discovers.

The Medical University of Gdańsk demonstrates very well-organised didactics. I have experienced this both as a student, but also as a lecturer and a researcher. In Milan, we have students from Gdańsk, from Europe and from all over the world who have come through exchange programmes such as Erasmus. What is significant – and what I have already emphasised during the ceremony of receiving the MUG Ambassador title – is that the students from Gdańsk are extremely well



MUG AMBASSADOR

The title has been awarded since 2017 to MUG graduates who are successful in their careers and actively promote the university in their daily work.

PREVIOUS AMBASSADORS:

- 2017/2018 Wojciech Kuźmierkiewicz, Pharm.D.**
President of the Board of the Polpharma Scientific Foundation, graduate of the Faculty of Pharmacy
- 2018/2019 Joanna Drewła, Ph.D.,**
Director General of Servier Polska, graduate of the Faculty of Medicine
- 2019 Prof. Dame Anna Dominiczak**
Regius Professor of Medicine, Vice-Rector and Head of College of Medical, Veterinary and Life Sciences, University of Glasgow
- 2019/2020 Prof. Barbara Jereczek-Fossa**
Professor of Oncological Radiotherapy at the University of Milan, graduate of the Faculty of Medicine with the *Primus Inter Pares* title

prepared. Both theoretical and practical classes are at very high level in Gdańsk. The exchange students from Gdańsk are very good and so is their reputation in Italy.

Observing the Medical University of Gdańsk, I can see that over the years it has put even greater emphasis on research, recognition and visibility on the European and international scientific scene. The key moment for increasing recognition was, in my opinion, awarding the Medical University of Gdańsk the status of a research university. Numerous scientific studies are conducted by my colleagues in cooperation with scientists from Gdańsk. This is very broad cooperation, which entails international exchange.

I am very pleased and proud of the high position that the MUG has achieved in both Polish and international rankings. The atmosphere in Gdańsk is really very dynamic. The last few years have been a really good time for Gdańsk medicine.

Transplantology yesterday and today



1980

PROF. BOLESŁAW RUTKOWSKI
retired head of the MUG
Department and Chair of Nephrology,
Transplantology and Internal Diseases

Over 40 years ago, on 31st March 1980, the first kidney was transplanted in Gdańsk. The date is conventional – the procedure started on 31st March and ended on 1st April. It was decided, however, that the date of the first such an important surgery cannot be announced on April Fool's Day, so that no one would treat it as a joke.

Preparations took over two years; the surgery and anaesthesiology team procured kidneys twice from donors who were diagnosed with the central nervous system death. The organs were transplanted in Warsaw. On 27th March 1980, a potential kidney donor, a young woman after a car accident, was reported. After 3 days, the central nervous system death was recognised. Prof. J. Dybicki, assisted by Assoc. Prof. W. Gacyk and one of the assistant lecturers, took the kidneys, rinsed them out, cooled them down and prepared them for the next transplant. One was taken to a patient in our local



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It was a great pleasure to see how, after the clamps were released, the transplanted kidney filled with blood and reached the temperature and appearance of a healthy organ. After a few minutes, drops of urine appeared in the ureteric orifice. It was a moving moment.

transplantation waiting list and the other was sent to Warsaw. A 43-year-old patient who had developed kidney failure due to chronic glomerulonephritis was the recipient.

The operation began at 10 p.m. During procuring and implanting the kidney – Prof. A. Manitius and myself were standing behind the surgeons' backs. That became a tradition later. On one hand, my friends surgeons claimed that they were happy to have our support behind them, on the other, they joked that our presence was caused by our concern not to batter the organ too much.

It was a great pleasure to see how, after the clamps were released, the transplanted kidney filled with blood and reached the temperature and appearance of a healthy organ. After a few minutes, drops of urine appeared in the ureteric orifice. It was a moving moment. After the ureter implantation, almost 150 ml of urine collected in the bag when abdominal wall tissues were being stitched. In the first 3 days, diuresis grew to over 2L per day. The patient was transferred to the Kidney Diseases Clinic and placed in a room (aquarium) which had glass walls so that he could be observed without anyone going inside. After less than a month, the patient went home. He survived over 8 years with the kidney and died of cardiovascular causes with a functioning organ.

The anaesthesiologists supervised by Prof. J. Suchorzewska, who – apart from providing anesthesia and post-operative care – were in the brain death adjudication Team headed by prof. S. Raszeja, also participated in the kidney transplant. Brain death was always pronounced in the presence of neurologists, supervised by Prof. L. Dobrzyńska.

Kidney transplant surgery, 31st March 1980

The transplant would not have happened without immunologists led by Prof. A. Żółtowska, radiologists and laboratory diagnostics specialists.

Over the last 10 years, the number of kidney transplants in Gdańsk has fluctuated around 100 per year. Our centre is one of the country's leaders, not only because of the number of transplantations it performs, but also because of treatment outcomes. This applies both to the survival of patients and to kidney transplants (figures comparable to those achieved in Europe and worldwide). By May 2020, the Gdańsk centre had performed 2,098 transplants and monitors over 1,200 patients with transplanted kidneys. Undoubtedly, the achievements in the field of kidney transplantation gave a boost to transplants of other organs. In 2006, the heart transplantation programme was launched, followed by the liver transplantation programme in April 2018. In October 2018, the first transplantation of pancreatic islets was performed in Gdańsk. After two experienced surgeons from the Zabrze centre were recruited to the Cardiac Surgery Clinic, lung transplantation was initiated in 2019. The UCC in Gdańsk is the only hospital in Poland which transplants so many organs. It is also one of the few in a country which performs a simultaneous kidney and heart transplantation (the second such transplant in Poland), kidney and lung transplantation, as well as kidney and liver transplantation.

MACIEJ DUDA, M.D.
**Department and Chair of Cardiac
and Vascular Surgery,
Poltransplant coordinator**

Our first heart transplant was performed in 2006; I was completing my studies at that time. We did not yet have accreditation for transplants: it was a one-time consent from Poltransplant. For the first few years, every transplant had to undergo a separate procedure and obtain a separate authorisation. For over 10 years, we have been an independent transplantation centre with full accreditation for heart



transplants and, for several years, for lung transplants. We started with single transplants in a year, and when I started coordinating them, they had already performed about 30 transplants. Last year was breakthrough – we transplanted 15 hearts. This, too, is certainly possible thanks to the infrastructure and the transfer to new buildings.

At the moment, our main objective is to increase the number of transplants. We cooperate with cardiologists, and we have more and more patients waiting for transplants. In the future, we would like to develop a mechanical heart support programme. We have several types of pumps, short- and long-term ones. There are also implantable pumps available, which we implant in the patient, and he can go home, live normally and wait for the heart. At a time when there are too few donors, this is a very good way of helping patients to survive the time when they are waiting for a heart from a donor. We do not yet have such definitive treatment for patients registered in Poland. At the moment, it is being treated as a bridge to transplantation and the patients we qualify for pump implantation are candidates for heart transplants.

The main problem of transplantology, which we have to deal with today, is the insufficient number of donors. We must appeal to the awareness and willingness of both hospitals and people themselves. The ones I have in mind here are the intensive care unit anaesthesiologists who report potential donors to Poltransplant. There are hospitals which liaise very well and regularly report potential donors, but there are also hospitals which do not report them at all. Every hospital should have a transplant coordinator who selects and reports potential donors to Poltransplant. Our hospital has excellent coordinators who visit neighbouring institutions with educational campaigns. They visit mainly intensive care units, where such potential donors are qualified. They make them aware, talk and explain what the procedure looks like. Cardiologists and cardiac surgeons visit cardiology wards too, informing them that there is such a possibility as a heart transplant or mechanical circulatory support, and that those patients who are potential candidates for such treatment should be reported to us earlier. We then stand a better chance of helping them effectively.

The power of cooperation. Intercollegiate Faculty University of Biotechnology UG&MUG

1993

PROF. EWA ŁOJKOWSKA
Dean of the Intercollegiate Faculty
of Biotechnology (FB) in 2005-2012

I have worked for the Faculty since its beginnings, i.e. since October 1993. The organisation and functioning of the Faculty has been, and continues to be, exceptional. Our undergraduates and doctoral students can draw from the offer of both universities. What is more, we are a unit that has been integrating the scientific community

of the UG and the MUG since its inception. The IFB was the first faculty of this kind in Poland. Up until then, no one has managed to establish an intercollegiate faculty that can harness the scientific and research potential of more than one university. This was undoubtedly thanks to the initiator of the faculty, Prof. Anna Podhajska. From the beginning, the Faculty has been very well organised and managed and quickly gained a reputation in Poland and also abroad. Every year since 1994, it has organised Summer Schools of Biotechnology in which outstanding scientists from Poland and the whole world participate.

Broad scientific cooperation has always been a specific feature of the Faculty. Our undergraduate and doctoral

students, and faculty research staff have actively participated in international scientific exchange funded under various European projects. One of the most important moments in the history of the Faculty was obtaining the



right to confer the Doctor of Science (D.Sc.) degree in biochemistry in 2010. In the same year, we initiated Life Science and Mathematics Interdisciplinary Doctoral Studies (LiSMIDoS), conducted fully in English.

Maintaining high level of scientific work was always of prime importance to us. It resulted in obtaining the highest scores in all parametric evaluations conducted by the Ministry of Science and Higher Education. In January 2011, as the only faculty teaching biological sciences in Poland, the IFB received an outstanding accreditation of the Polish Accreditation Committee. As a result of such high evaluation of teaching and research activities, the Ministry of Science and Higher Education awarded us with the Best Programme distinction in April 2012.

We have contributed to the improvement of the scientific reputation of both universities through very effective organisational work and scientific and teaching achievements. The Faculty research staff carries out joint research projects with many MUG departments, and graduates of master and doctoral studies become the faculty research staff, in particular at the departments conducting basic research and implementing modern diagnostics based on molecular markers. Uniqueness has always been our asset. We are still the only faculty of this kind in Poland.

Broad scientific cooperation has always been a specific feature of the Faculty. Our students have actively participated in international scientific exchange funded under various European projects.



PROF. WIESŁAW MAKAREWICZ
Rector of the Medical University of Gdańsk
in the years 1999-2005,
Dean of the IFB in the years 1993-1996
and 1996-1999

After the political transformation of 1989 and establishment of the State Committee for Scientific Research, ideas for joint ventures emerged in the Gdańsk academia. One of them, articulated at a meeting of the Council of Rectors of the Coast chaired by Prof. Wittbrodt (Gdańsk University of Technology), was about organising conjoint contemporary teaching of biotechnology. This initiative was presented by Prof. Anna Podhajska from the University of Gdańsk. The idea originated in Wisconsin, in the laboratory headed by Prof. Waclaw Szybalski, where Prof. Podhajska conducted research. It was a revolutionary idea at the time; it envisioned

a 5-year-long master course with great freedom in the choice of subjects and educational path, far-reaching integration of teaching with research, broad international cooperation, organisation of summer schools for integration and extension of teaching. Both the University of Gdańsk and the Medical University of Gdańsk became interested in it. It so happened that at that time the authorities of these two academic centres were composed of chemists and biochemists – Rector Grzonka and Vice-Rector Żylicz at the University and Rector Angielski and myself as Vice-Rector at the Medical University of Gdańsk – who all understood well the importance of modern genetics and molecular biology to medicine.

The Intercollegiate Faculty of Biotechnology UG&AMG was established on 1st June 1993. It admitted 30 students for the first year. The first Dean for the 1993-1996 term of office was me, and Prof. Anna Podhajska and Prof. Grzegorz Węgrzyn took the posts of Deputy Deans. In the 1996-1999 term of office, I had the honour and pleasure of serving as Dean once more, with Prof. Jacek Bigda and Prof. Ewa Łojkowska as Vice-Deans. The latter took up the duties of Dean in subsequent terms of office. The proposed organisational and legal structure of the joint faculty turned out to be very successful and is still the only one of its kind in the country.

The European Community grant of ECU 473,000 for the years 1994-1996 received under the TEMPUS Programme was of great importance for the development of the Faculty. The grant's contractor was the Medical University of Gdańsk, and I was the coordinator. Oxford University, Bradford University, University of Bremen and Institut National des Sciences Appliquées de Lyon were the project's partner. The grant allowed us to immediately send our students to partner institutions for internships. The project opened up new opportunities for cooperation and made it possible to finance the participation of lecturers from partner universities in the annual Summer Schools and purchase modern research equipment. The Faculty developed rapidly and achieved further scientific, teaching and organisational successes. Further investments were completed in a short time: first, a new building on ul. Kładki, the Tri-City Academic Animal Lab at the Medical University of Gdańsk campus and, finally, a modern large independent building at the University of Gdańsk campus.

Studies for foreigners. English Division

2001

Since 2001 the University has been providing education for English speakers as a part of a uniform Doctor of Medicine programme. The number of classes and the curriculum are modelled after the programme's Polish-language equivalent. The studies last 6 years. The MUG has also launched a 3-year Bachelor in the Nursing programme and a uniform Pharmacy programme, both conducted exclusively in English. A special Premedical

Course is offered as well. The staff of the First Doctoral School is also prepared to conduct classes in English in the following three disciplines: pharmaceutical sciences, medical sciences and health sciences

SHAGUN BHATIA
graduate of the first class of the English
Division M.D. programme at the Medical
University of Gdańsk, specialises in family
medicine, currently working
in Bergen, Norway

I was drawn to the idea of studying medicine in Gdańsk, Poland and eventually decided to do so after reading a paper by Linda Vatne, Ph.D. who visited the MUG a year before. If I were faced with the same educational choice today, I would have – without a doubt – made the very same decision. The knowledge and skills that I acquired while studying at the MUG are of the highest level. Although I have been working in a modern university hospital in Norway for

some time now and experienced a very different approach to teaching and classes' organisation, I still consider Medical University of Gdańsk as example of a model medical school.

Small group classes conducted in modern facilities, practical clinical training and the opportunity to encounter patients with a vast variety of illnesses is, among others, what the Medical University Gdańsk has given me.

I have great memories of my fellow students, teachers – especially of Jacek Kaczmarek, M.D., Ph.D. (physiology) and Iwona Gągało, Ph.D. (pharmacology) – dormitories and Poland in general. Moreover, I now have great friends from all over the world. However, the knowledge I acquired at the MUG is by far the most precious.

Although, me and my colleagues try to stay in touch and on occasionally even meet, everyday life filled with work and family duties does not always facilitate socialising.



MARLON SOUZA LUIS
6th year English Division
medical student

The Medical University of Gdańsk is a highly specialised academic centre, providing students with a vast spectrum of opportunities. Being part of smaller research projects or joining scientific organisations allows you to immerse yourself in areas of medicine which pique your interest. In recent years, I have noticed the student scientific community steadily developing. New scientific circles are created every year and more people are getting involved, motivated to push themselves into academic medicine.

Not every medical university enables you to have as much contact with patients as we do, either by taking part in patient procedures or in surgeries. Motivation and learning forge a path to improving your capabilities and skills. For instance, I was able to take part in a microsurgery course, something usually reserved for specialists. Thus, I was able to explore my areas of interest and see what direction I'd like to take in the future.

I find myself fortunate enough to partake in many opportunities as a result of the hard work and passion of the academic staff. Seeing their enthusiasm motivates you, pushing you forward, making you want to take part in their initiatives, such as the medical 3D printing project I am lucky enough to be part of. The doctors here are very willing to help you through the process. Some students need more help than others and they are willing to dedicate time for us. That willingness and dedication is especially evident in the scientific circles. All my supervisors are eager to help their students. This is what I find unique about MUG.



Motivation and learning forge a path to improving your capabilities and skills.

Our place in Europe and the world. International cooperation

PROF. BARTOSZ KARASZEWSKI
Head of the MUG Department
of Neurology and Adult Neurology Clinic

I have always been convinced that one of the most important issues in the career of a young physician/scientist is to gain experience of working in leading world centres, possibly with various organisational structures and interests, from standard clinical practice and projects through to psychology and cognitive sciences, ending up in fundamental sciences and experimental models. Although those times were really different, i.e. without as many fellowship or scholarship positions and programmes or funding schemes such as the multiple EU funds, even then ambitious plans for scientific mobility could have already come true.

I spent a large part of the fifth year of my undergraduate studies in Italy under the Erasmus Programme, being one amongst the first Polish student groups participating in this scheme. I think that Erasmus has been one of the EU's most relevant educational ideas in terms of both personal essential development and general societal integration. I would even postulate to discuss and consider whether taking up a portion of undergraduate education in another EU country

in a different academic institution and system should be obligatory or at least somehow promoted. The skills acquired during such a scholarship cannot be learnt from books – these are not the ones you gain literature-wise.

This was a good university and faculty – Facolta di Medicina e Chirurgia in Perugia, a relatively small town but thoroughly academic in terms of the number of students, university events and life and, above all, internationalisation. One of the two Italian state universities for foreigners offering courses and faculties on various aspects of Italian history and culture is located there. It is also a city of jazz, with many clubs and meeting points. This is where I learnt to listen to this particular genre and added it to my music portfolio. Interestingly, I had to learn Italian immediately, starting upon my arrival to Perugia. The university programme was initially supposed to be in English and I could not speak a word of Italian at that time. Thus, even before the start of the semester, I started studying at the aforementioned Università per Stranieri. This was a wonderful time. For example, I remember the extensive discussion-filled classic Italian film evenings. I used to spend whole days, from morning until late evenings, with Italians and students from other countries on extensive discussions in my new language. Shortly afterwards, I was certified with advanced knowledge of Italian.

Just after I graduated, I was seeking scholarship or fellowship opportunities on my own and successfully applied for the Marie Curie European Commission PhD programme.



I would even postulate that taking up a part of your studies in another EU country, in a different system, should now be obligatory. The skills acquired during such a scholarship cannot be learnt from books – these are not the ones you gain literature-wise.

Out of the three Marie Curie stipends I applied for and was awarded with, the first was at the University of Oslo, the second was at INSERM in Paris, and the third was at the University of Edinburgh, the city where I later lived and worked for several years. I did my obligatory training towards the clinical specialisation in neurology partly in Poland and partly there. After my habilitation, I went back to the UK but this time started working at the University College London Institute of Neurology, which is combined with the famous Queen Square Hospital – National Hospital for Neurology and Neurosurgery. Specifically, while in the United Kingdom, I found out what a great asset it is for a scientist to possess knowledge of various fundamental sciences. I think this is a strong point of educational programmes at medical faculties in Poland, and I believe that the tendency towards ongoing partial withdrawal of some pre-clinical courses from the undergraduate curriculum is erroneous.

Putting creativity, original output, early self-reliance and analytics on the pedestal, instead of just striving for the vast amounts of knowledge measured by volume of read texts is what appealed to me and still does about the Anglo-Saxon mentality. To be clear, these two major issues are both of great importance. It is just a matter of the right proportions. This was one of the reasons why, at a certain point in my career, the dilemma arose whether to stay in the UK or return to Poland. I decided on the latter, and I do not regret it now. One of my major aims was to build up a team that would undertake projects that would later significantly change clinical reality and management standards. I am pleased that the University College London will soon join a major project, a clinical trial whose idea was conceived in Gdańsk and is led from there.

GEORGIANA APOSTOL
Erasmus+ student

Applying for the Erasmus+ Programme at the Medical University of Gdańsk was the best decision I have ever

taken. It involved getting to know a new, different culture. Poles, especially in Gdańsk, are extremely friendly. I have great memories of the classes, the openness of the lecturers and this incredible enthusiasm. This is a great university. I recommend spending the whole year here to everyone. I have only wonderful memories of that time; I met many people from different cultures from all over the world and I have friendships for life now. In general, I think that students should not hesitate whether to choose the MUG or not. It is worth studying here.

EWA KISZKA
Head of the Department
of Internationalization

The Department of Internationalization provides a multi-level support to students, scientists and administrative staff. It raises funds and organises foreign exchange. Furthermore, we actively seek new opportunities and new areas of cooperation. We assist foreign guests to our University: scientists, scholarship holders, interns, undergraduate, postgraduate and Ph.D. students. We train the administrative employees both linguistically and culturally so it can provide the best possible support for the academic staff and students. Last but not the least, we implement good practices in the field of internationalisation, applied in the best universities in the world; for instance, in 2019 we launched a Welcome Point.

You cannot forge a career today without international cooperation and mobility, especially in the field of medical science. It is the experience shared by every prominent scientist at our University. Going abroad for a part of your studies, practical training, internship or research work is a multi-level experience. You have to cope with everyday life in a foreign country, adapt to other customs and rules, and at the same time study, work, take part in practical training and do all this with great commitment in order to make the

most of the opportunity. This is the transition to true professional adulthood and it a step best taken during your studies.

For many years, I have been involved in recruiting students to our partner universities and have tried to provide support to those who were looking for educational opportunities abroad. Therefore, I know and remember their stories and am follow their career development with great pleasure. I met our current Rector Prof. Marcin Gruchała during a partner visit to the University in Kuopio where he did his postdoctoral fellowship as a Foundation for Polish Science grant holder. Prof. Krzysztof Narkiewicz, as a 6th year student of medicine, served his internship at the OLVG hospital in Amsterdam and then worked at the University of Padua Clinica Medica 1. He also won a 3-year-long scholarship at the University of Iowa. I met Prof. Bartosz Karaszewski when he was still a student. Prof. Piotr Czauderna served numerous foreign internships. Another great example of mobility and the resulting passion is Daniel Kasprowicz, a lay missionary, dietetics graduate and nursing student. In Madagascar, he takes care of those suffering from malaria, typhus and leprosy, looks after malnourished children and works in an African canteen.

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Faculty of Health Sciences

2005

BARTOSZ PRYBA
Nurse and MUG student

with my knowledge. This strengthened the belief that I wanted to stay in the programme, and of course at this university. I felt that what I was doing was important and that I am appreciated.

One of our teachers inspired me to take up work in the emergency department. On her own example, she showed me what nursing was actually about, that sometimes you have to approach a patient a little more decisively, sometimes with more delicacy, but that it is all done for his sake and grounded in our knowledge.

During my studies, I always wanted to do something more, so I started working at the Student Scientific Society. Although it proved to be a time-consuming and commitment-involving activity I found it really rewarding. It allowed me to participate in scientific conferences and improve myself in writing scientific papers under the guidance of our lecturers. I took part in the European Nursing Student Association convention, whilst also commencing my work in its organizational structure. Also, I became involved in the work of the Polish Nursing Association. Our aim is to show that modern nursing is more than just working in a hospital, at the patient's bedside. We are gaining more and more entitlements. Maybe in the future it will allow us to fight even better for both our good and for the good of our patients.

The biggest challenge for me at work is not to fall into routine of performing my tasks automatically. Such is the specifics of an ER at times. Therefore, the most

When I thought my of my studies, I was considering psychology, medicine or nursing. Medical rescue also crossed my mind. In the end, I decided on nursing. I gave myself the 1st year to make the final decision. The turning point was to be the first internship at the hospital: meeting the patient, his real problems and facing death. I also wanted to experience working in a team which is, as is well known, often highly feminized. However, I almost immediately met one of the male nurses and it was encouraging for me that men also successfully practice this profession and are satisfied with it. I got to like working with a patient, the fact that we can help him and, together with doctors – at least to some extent – alleviate his ailments. I noticed that I was inspiring confidence



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The biggest challenge for me at work is not to fall into routine of performing my tasks automatically. Such is the specifics of an ER at times. Therefore, the most important thing for me is to fully acknowledge the patient, his feelings, the fact that he is afraid, that he is upset, that his family is upset.

important thing for me is to fully acknowledge the patient, his feelings, the fact that he is afraid, that he is upset, that his family is upset. I find it essential to talk to him, to focus on him, if only for a moment, to show that he can trust me, turn to me for help and that together with the medical team we work for his good. Although sometimes there is neither time nor the opportunity to do so, it is very important not to lose sight of the patient and not to perceive him as just another case. That is how I understand the profession.

DOROTA MUSZYŃSKA-MARCINKOWSKA
Head of the Dean's Office
of the Faculty of Health Sciences

I have been working at the University since June 1992. I started at the Dean's Office of the Faculty of Medicine, where I worked for 7 years under the direction of Mila Kroll, well-known within the MUG community. The Department of Nursing, which initiated the first extramural studies for nurses at the University, was established in 1999. I was offered the opportunity to build a dean's office for extramural studies and handle student affairs. I was happy to do it but in a few months' time I had a baby and went on a parental leave. Upon my return, the Dean's Office was divided into the Dean's Office for Science and the Dean's Office for Students. I was in the latter. It was a time of major changes in higher education. Undergraduate programmes, extramural studies known as bridging programmes, and later on, second-cycle programmes were created; there was nursing and obstetrics, physiotherapy, medical rescue and public health. In 2006, the then Dean of the Faculty of Medicine, Prof. Piotr Lass invited me for an informal talk in our dean's office kitchen. He said that he had been given the mission of establishing the Faculty of Health Sciences. He asked if I would like to help him with the administration

side of the endeavour. I thought about it for a while, but of course I agreed. That is where our adventure began. On 30th September 2006, with the first council meeting, the faculty commenced its work.

What do I like most about my work? People. From the very beginning, I work surrounded by a great team. I recall the period of the Faculty's formation as very intensive, yet immensely creative. Everything was constantly in motion. In the beginning, there were four study programmes at our faculty: nursing, obstetrics, physiotherapy and public health which had two specialities, medical rescue and electroradiology. We now have nine programmes; ten actually, if you include the 2nd degree environmental health studies. We have managed to do a great deal, because of Prof. Lass' natural ability of getting everyone involved. Yet, he does not achieve it entirely on his own. We had and still have excellent deputy deans. The authorities include Aleksandra Gaworska-Krzemińska, Ph.D, D.Sc. and former deputy deans Prof. Jacek Sein Anand, Rita Hansdorfer-Korzon, Ph.D, D.Sc., Prof. Sylwia Małgorzewicz, Prof. Przemysław Rutkowski and Janina Książek, Ph.D., also Prof. Andrzej Basiński, the Dean of the Faculty for the 2016-2020 term of office.

For the first two years, we actually concentrated solely on teaching. This changed in 2008, when we were granted the right to confer the doctor in medical science degree and in 2009 in health sciences. The Dean's Office began handling all inquiries regarding doctoral dissertations. In parallel we handled all didactics-related matters and both preparation and organisation of doctoral defences. Within the period of 14 years we conducted nearly 150 of them in both disciplines. Afterwards, we were granted the right to confer the degree of the Doctor of Science (D.Sc.) in medical science. So far, it has been bestowed upon 21 academics. In 2018 we have begun handling matters related to the awarding of professorships. It is our great pride that we were able to complete 16 professorship procedures in a short time. The scale of scientific development is really impressive. I think that in terms of science, it is one of the best health sciences faculties in Poland. Many of the researchers at the Faculty are consultants and members of the collegiate councils; Prof. Lass is a member of the Council of Scientific Excellence and the



Institute of Maritime and Tropical Medicine

KATARZYNA SIKORSKA, M.D., PH.D., D.SC.
Acting Director of the Institute
of Maritime and Tropical Medicine

The Institute of Maritime and Tropical Medicine is one of the oldest scientific and research institutions in Poland. Its activity began in the second half of the 1930s. Poland's gaining access to the sea and the resulting need to comply with international conventions on the sanitary protection of coastal waters and borders, the construction of the port and city of Gdynia and the dynamically developing maritime economy all determined the need to develop maritime and tropical medicine. Initially, it was a branch of the National Institute of Hygiene in Warsaw. The decision of the Minister of Social Welfare of 5th June 1939 established the Institute of Maritime and Tropical Hygiene, a branch of the National Institute of Hygiene in Gdynia. The institute's statutory tasks included training ship, port and tropical physicians and research, including in parasitology, in the emerging Laboratory for Exotic Infections, later transformed into an independent Parasitology Laboratory. The Regulation of the Minister of Health of 2nd May 1946, issued in consultation with the Minister of Education, established the Institute of Maritime and Tropical Medicine (IMTM) as a unit of the Physician's Academy in Gdańsk. Its research and

educational profile, broad and unique on a national scale, referred to the pre-war tradition and included bacteriology, epidemiology, parasitology, toxicology, pathology of exotic diseases and health care of people employed in various maritime economy sectors. In the years 1957-2003, the IMTM was an independent departmental unit of the Ministry of Health and it occupied buildings scattered throughout Gdynia and Gdańsk. It was then transferred to one location, after the new headquarters in Gdynia opened in 1985. International research and teaching have expanded as a result of developing service activity in the field of diagnostics and treatment. In 2003, the IMTM was reincorporated into the Medical University of Gdańsk and since then the training facilities have also served students of all MUG departments.

The main fields of institute's research and educational activity, which determine its unique profile – also on a global scale – involve tropical medicine, travel medicine and parasitology. Within their scope, there are notable subjects such as the broadly understood risks to human health caused by biological factors, followed by maritime medicine with maritime telemedical assistance service and underwater and hyperbaric medicine and maritime rescue. The IMTM employees are members of expert groups which prepare specialisation programmes and standards of conduct for their specialisations. Such focused research and training require close cooperation with the units of the University Centre for Maritime and Tropical Medicine. The UCMTM clinics such as Tropical and Parasitic Diseases,



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Central Committee for Degrees and Titles. In the last term of office, the then Dean Prof. Basiński put great emphasis on highlighting the specificity of our Faculty. The Institute of Maritime and Tropical Medicine – unique on a national scale – and study programmes such as health psychology and environmental health, are our distinctive features.

We like to work at the Faculty. There is a good atmosphere here. We, i.e. the administrative staff, can count on the support of the department authorities in improving our qualifications, help and a friendly approach to our matters.

Occupational, Metabolic and Internal Diseases, Cardiology and Internal Diseases, Hyperbaric Medicine and Maritime Rescue, as well as National Centres of Tropical, Maritime and Hyperbaric Medicine established on their basis and specialist outpatient clinics, including Occupational


Medicine, Tropical and Parasitic Diseases, Infectious Diseases, Cardiology and Hepatology Clinics, provide a wide variety of highly specialised medical services to patients from all over Poland. The combined forces of the experts from the IMTM and UCMTM create a truly unique interdisciplinary space to train medical professionals of various specialities. The COVID-19 pandemic crisis and health threatening situations it caused have also proven the ability of the units to organise their activities effectively to meet such rapidly developing and demanding medical challenges.

Our ambition is to continuously expand the offer of postgraduate and specialist education at an international level. We wish to continue interdisciplinary scientific research in cooperation with national and international research centres and to establish an epidemiological response centre at the IMTM to ensure security for the eastern region of the European Union in the field of research and diagnostics of infectious, parasitic and tropical diseases, including newly emerging ones.



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Institute of Medical Biology



PROF. JANUSZ LIMON
retired Head of the Department
of Biology and Genetics,
Winner of the Prize of the Foundation
for Polish Science in 2004

The commissioning of the Institute of Medical Research (now the Collegium Biomedicum) in 1975 was of fundamental importance for the development of the University.

During my studies at the Faculty of Medicine, I learnt the fundamentals of medicine still in the Old Anatomy building, today the Atheneum Gedanense Novum. I also had my first classes with students there. After moving to the new Institute of Medical Research building, the quality changed. Its newly-furnished rooms for assistants and a large seminar hall enhanced the didactic process. Three large lecture halls improved the organisation of lectures. Isolated laboratories with new equipment contributed to the development of our scientific research and studies.

The new equipment was of prime importance for us, scientists. We were provided with, for example, a high-class ZETOPAN BINOLUX III microscope with a photo cap and set of lenses. A modern incubator and laminar flow cabinet made by ASSAB were purchased for cell cultivation in the new premises.

Over 40 years, the Collegium Biomedicum has undergone numerous renovations. Today, there are many modern laboratories there, which have been thoroughly modernised since their launch, including the genetic or biochemical laboratory complex.

Institute of Nursing and Midwifery

**ALEKSANDRA GAWORSKA-KRZEMIŃSKA,
PH.D., D.SC.**

Acting Head of the Institute of
Nursing and Obstetrics, Deputy Dean
for Promotion and Development of
the Faculty of Health Sciences

Nursing at the Medical University of Gdańsk came into being as early as 1998. However, the official opening of the Nursing Division at the Medical University of Gdańsk and at the same time the first matriculation of 75 students enrolled for an extramural uniform master's studies programme took place on 5th May 1999. In 2001/2002 academic year, the first-cycle programmes in nursing and obstetrics were launched. A year later, the Department of Nursing with 6 independent laboratories was established at the Faculty of Medicine. The staff and teaching facilities were gradually increased, and second-cycle programmes and bridging programmes for nurses and midwives were launched. Since 2006, education in nursing and obstetrics has been provided by the newly established Faculty of Health Sciences with the Department of Nursing and the Institute of Maritime and Tropical Medicine. It was a milestone in the history of the

University. It allowed transformation of the Medical Academy into a university. Initially, the faculty trained students in obstetrics, nursing, physiotherapy, emergency medicine, electroradiology and since 2008 also in dietetics and public health; currently also in environmental health and health psychology.

The development of international cooperation is surely worth emphasising (for instance, with the Nursing Department of Florida University in Gainesville and with a number of Baltic Sea universities under the COHAB programme), along with the development of teaching staff as well as the growing activity of students in numerous scientific circles. Thanks to the funding from the European Union and Ministry of Health, it was possible to equip and retrofit professional skills laboratories with modern equipment (trainers, phantoms, simulators and audiovisual equipment). This made it possible to conduct classes following the medical simulation method and to objectify the process of assessment and evaluation of the education process through the introduction of the Objectified Structured Clinical Examinations (OSCE).

One of the achievements is also the implementation – since 2006 – of the international reference terminology specified in the International Classification for Nursing Practice (ICNP®), followed by the ADPIECare Dorothea electronic documentation and support system for nursing work. In this respect, the Gdańsk Department of Nursing has become a national leader.

We were the first university in Poland to launch the first-cycle programme in nursing conducted in English (Nursing English Division). In addition, we are proud of the steady increase in the number of young people interested in taking up these challenging study programmes. For several years now, the number of first-cycle programme students has exceeded 100 for nursing and 50 for obstetrics, with several applicants per place.

Today, the faculty is thriving and still developing. Its diversity and multidisciplinary cooperation are its biggest assets, followed by high quality of education translating directly into how the graduates are perceived by Pomeranian employers and this is not only in the medical sector.



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FOR THE GOOD OF PATIENTS WELL-BEING AND DEVELOPMENT OF SCIENCE

Healthcare entities

The Medical University of Gdańsk and its healthcare entities: University Clinical Centre (UCC), University Centre of Maritime and Tropical Medicine (UCMTM), Family Medicine Centre and University Dental Centre cooperate not only healthcare in terms of but also education and research. Their immediate vicinity favours the implementation of many innovative projects.



University Clinical Centre

MAREK LANGOWSKI

Chancellor of the Medical University of Gdańsk

When the prospect of obtaining funds for the realisation of hospital investment arose, we began scouting the Polish market for companies which would take up that particular type of project. It was not an easy task because back in the 1980s and 1990s in Poland the practice of designing hospital entities had practically ceased. Thankfully, I managed to get a hold of Prof. Kuryłowicz. He invited the Art Deco studio in Gdynia to cooperate and it was this consortium which came up with the design concept of the Invasive Medicine Centre, which was one of the stages of the Academic Teaching and Clinical Centre project. It involved reconstructing Building no.1 to fulfil teaching and administrative functions, adapting Buildings no.2 and no.3 to house paediatric clinics and creating a road system modernisation design. The first stage, however, was the construction of the centre. This project was successfully completed on time.

When we embarked on that venture we immediately considered further steps. We were aware that initially only part of the needs would be met. Therefore, an international competition was announced to develop the structural concept of the Non-Invasive Medicine Centre. We took a bit of a risk because at that time we did not have any funds secured for such a realisation. Therefore, the award was very symbolic.

However, the winner was to be entrusted with developing the building's construction and executive projects. The concept presented by Art Deco won unanimously. After a while, we also managed to include the Non-Invasive Medicine Centre in the multiannual plan as a continuation of the hospital construction. The first stage has already been completed, the second is underway and I hope that we will be able to commission the second part in the first half of 2021.

I have been fortunate enough that the rectors with whom I have worked with so far worked gave me a free hand and did not restrict me in terms of investment plans. When we commenced with the construction of the Invasive Medicine Centre, everyone shook their head in disbelief and asked – 'do you even realise what are you signing up for? You will not receive funding for this; just give it a rest.' We stood our ground. We had a vision and we saw it through. I might sound immodest, but as far as hospital entities are concerned we can boldly compare ourselves not only the buildings constructed in Europe, but also around the world. It is not only my personal opinion.

What lies ahead? I have a couple of ideas which will be brought up for discussion once the chance of their implementation arises. I am aware that there are other universities, that they also have needs and are waiting in line. We try to aid their efforts with our experience. One such university is the Medical University of Białystok. They have gone in a similar direction to us. They managed to carry out a long-term investment, which was completed last year.

JAKUB KRASZEWSKI
CEO
of the University Clinical Centre

Adequate resources and their funding are essential for an effective management of healthcare activities. The people who constitute the institution are of course the most important. Without them the whole infrastructure would

be worthless. On the other hand, our doctors and nurses would not be able to conduct their duties so well if their workspace was obsolete.

Over the last several years the University Clinical Centre has undergone an enormous change. The hospital consolidation project commenced at the turn of the 21st century. The last note of the project resounded last year, when we left the location at ul. Kliniczna and gathered all our specialisations in one place. Thus, we achieved a synergy effect. Our teams strengthened. Gathering most of



the specialist clinics on one campus facilitates patient care. Almost all the medical consultations you can imagine are possible in one complex, under one roof.

We have had to get used to the changed location. Until recently, some people used to say, e.g. 'we are from Łąkowa', but these regionalisms have already been slowly disappearing. We are all from the University Clinical Centre and starting to enjoy it. It is great when the team working in a given place identifies with it and talks about it with pride.

The new structure has greatly improved the patients' healthcare options. The number of patients we admit to hospital today and 10 years ago is incomparable. As is the number of diagnostic services we provide. At the moment we have 140 thousand m2 of space under one roof at our disposal. We conduct over 20% of all hospitalisations and over 20% of all specialist visits on the Coast, which translates into around 120,000 hospitalisations and around 550,000 specialist visits per year, the largest number among hospitals in the region. Over the last 10 years, the number of hospitalisations has practically doubled, with the number of beds remaining the same and the headcount also being roughly the same as 10 years ago. It was precisely through consolidation that such high efficiency was possible.

Our situation is unique also in terms of the symbiosis between the university and the hospital, which gives us access to the latest knowledge. We are, therefore, reaching for solutions that have just emerged somewhere on the other side of the world.

In addition, the UCC is one of the leading oncology centres on the Coast. Oncological patients have become chronic patients who need support from other specialists. Since we have an Oncology Unit operating as a full-profile clinical centre, we provide them with multi-disciplinary support.

We are at the forefront of many transplantation programmes. We can perform simultaneous transplants of two or even three organs. We are the only such multi-profile transplantation centre in Poland.

Furthermore, we are distinguished by a certified European bariatric centre which provides broad, horizontal

and multidisciplinary care for people struggling with obesity. In addition, it is worth mentioning all kinds of pilot programmes that we carry out, such as mechanical thrombectomy. Our Neurovascular and Stroke Centre is exemplary in terms of the numbers and effectiveness of ischaemic stroke treatment.

We have been conducting clinical research for many years. Our Phase I Clinical Trials Unit has been operating for several months and already is one of the most recognisable entities of this kind in Poland. We can jointly conduct and apply for non-commercial clinical trials financed from public funds. We obtained almost PLN 90 million in the first competition of the Medical Research Agency, and this is certainly just the beginning.

MACIEJ DUDA, M.D.
Department and Clinic of Cardiac
and Vascular Surgery,
Poltransplant coordinator

We currently work in a ward where patients are ensured much better conditions, have smaller rooms, each with a sanitary unit. This definitely has a positive impact on the quality of patient care. As far as the procedures are concerned, apart from the full spectrum of cardiac surgeries, we can use many types of devices for mechanical circulatory support or further develop the heart transplantation programme. In addition, we have better facilities for monitoring such patients and their further treatment in the postoperative period. We did that in our old units, but now the postoperative and day wards together with the operating block are in one communication route, which not only makes the transport of patients much easier, but also ensures greater safety.



MONIKA ŁĘGOSZ
head of the operating block
at the University Clinical Centre

New operating block at the Invasive Medicine Centre has its entire infrastructure set up at one place – sixteen operating rooms have all been arranged in one location. This makes work organisation more efficient. It was a major breakthrough for theatre nurses. They used to specialise in one area, and here, working in this large block, they need to be familiar with all the specialities in order to maintain continuity of work.

The operating block of Non-Invasive Medicine Centre consists of eight operating rooms on the third floor where the surgeries are performed by gynaecologists, cardiac surgeons and vascular surgeons. There are also two operating rooms in the delivery suite on the fourth floor. The old operating block in the hospital at ul. Kliniczna was spread over three floors; the team had to move between them. Here, everything is located on one level. The equipment and all technical facilities are more modern. We truly are in the 21st century.

The work of theatre nurses is very difficult. We cannot afford to cease our professional development. We are constantly implementing new equipment and technologies. Furthermore, we must keep our knowledge up-to-date, constantly learn new things. Apart from providing patient care, we also play the role of a bit of an engineer, as we need to be well acquainted with the medical equipment which we use during surgical procedures. We now work with new equipment and use new technologies. It all affects patient safety.

“We truly are in the 21st century. The work of theatre nurses is very difficult. We cannot afford to cease our professional development. We are constantly implementing new equipment and technologies. Also, we must constantly learn new things.”

From the left: Monika Łęgosz, Justyna Czeberkus (coordinator of the operating room), Dorota Baranowska (nurse coordinating the operating room at the IMC)

University Centre of Maritime and Tropical Medicine

PROF. MARCIN RENKE
Director of the University Centre
for Maritime and Tropical Medicine

The Institute of Maritime and Tropical Medicine in Gdynia was established over 80 years ago thanks to the dedication of Józef Jakóbkiewicz, M.D., who in 1935 organised a branch of the National Institute of Hygiene in Gdynia and took over its management. Until 1937, the institute performed food and bacteriological tests. However, tropical medicine became the branch's specialty. On 5th June 1939, the institute became the Institute of Maritime and Tropical Medicine, a branch of the National Institute of Hygiene in Gdynia. It was reactivated after the war in 1947 and incorporated into the Physician's Academy in Gdańsk. In 1957, the institute gained independence and became one of the departmental institutes of the Ministry of Health. At that time, it had several buildings across the Tri-City. In 1985, the institute obtained its headquarters in Gdynia-Redłowo. After the political changes in Poland, Wiesław Renke, M.D., Ph.D. managed and developed the institution in 1990-2001. It was here that the first CT scanner in Gdynia

was placed, followed by an MRI machine. Thanks to the commitment of Zdzisław Sićko, M.D., Ph.D., a modern hyperbaric medicine centre was established, which became the leading unit in this field in the country. In 2003, the institute was again incorporated into the Medical University of Gdańsk. The clinical part was separated, which became first the Academic Centre and then the University Centre for Maritime and Tropical Medicine. Today, it operates as an independent clinical hospital, whose founding body is the Medical University of Gdańsk. The hospital employs over 200 people, does not generate debt, has almost 90 beds, serves about 6,000 patients in the emergency room and has over 4,000 patients in four inpatient clinics annually, such as: Tropical and Parasitic Diseases; Cardiology and Internal Diseases; Occupational and Internal Diseases; and Maritime Medicine and Rescue. Moreover, it provides services in specialist outpatient clinics in the field of heart and vascular diseases, infectious diseases, travel and occupational medicine and others. The UCMTM includes the Department of Imaging Diagnostics (with two CT scanners, including a new, 128-layer device handed over by the Ministry of Health in 2020, directly at the clinical building) and Endoscopic and Diagnostic Laboratories. It provides outpatient services of cardiac rehabilitation and hyperbaric procedures used in the treatment of difficult-healing wounds. The hospital is being modernised. This



Thanks to the goodwill of the Rector, local authorities, the Pomeranian Governor and the Ministry of Health as well as obtaining European funds, further investments are planned, including the modernisation and renovation of the emergency room, endoscopic laboratory and cardiology ward and the addition to the clinical building of modules containing appropriately ventilated rooms ensuring the isolation of additional nine patients in the clinics.

year, the renovation of the intensive care unit was completed. Thanks to the goodwill of the Rector, local authorities, the Pomeranian Governor and the Ministry of Health as well as obtaining European funds, further investments are planned, including the modernisation and renovation of the emergency room, endoscopic laboratory and cardiology ward and the addition to the clinical building of modules containing appropriately ventilated rooms ensuring the isolation of additional nine patients in the clinics.

The institute is, however, primarily people, young scientists attending doctoral programme and the doctoral school, as well as six professors, six doctors of science (D.Sc.) and eight doctors. The hospital employs many specialists in various fields of medicine, including the national consultant for maritime and tropical diseases, retired long-term institute director Leszek Nahorski, M.D., Ph.D., D.Sc. He continues to support our team and its efforts with his experience so that the institute led by Katarzyna Sikorska, M.D., Ph.D., D.Sc. and the UCMTM can regain their former glory and rightful position.

Family Medicine Centre

GRAŻYNA DIJAKIEWICZ, M.D.
Family Medicine Centre

In 2019, the Family Medicine Centre celebrated its 20th anniversary. It still employs almost the same small team of 22 people, 16 of whom are medical professionals. Last year, we provided a millionth medical advice. We are proud of our headquarters in a beautifully renovated Building No.1 Our patients appreciate the above-standard equipment at our clinic.

The patients emphasise the high quality of assistance, pleasant atmosphere, empathy and constantly improving staff qualifications, as well as very good work organisation. This is all the more valuable to us for our patients are mainly employees of the Medical University of Gdańsk, the University Clinical Centre and students of medical faculties. Their satisfaction motivates us to further improve the quality of our work.

Our clinic is unique because of its relationship with the university and University Clinical Centre. Outstanding specialists from the Departments of Obstetrics, Gynaecology and Ophthalmology and the Institute of Radiology cooperate or have cooperated with us: it is impossible to name them all here.

We provide preventive care to the MUG employees; to a great extent, the same people are our patients. We are also a base for summer practices and postgraduate and specialisation internships in family medicine and paediatrics, for which we have an accreditation.

We take part in the MUG research projects, e.g. POLSENIOR, Geriatrics Centre and currently in the MUG International Research Agenda and Translational Medicine project.

Our future is 'coordinated care', although the pandemic has unfortunately ceased the implementation of this system. We want to continue to develop telemedicine and e-clinic.

The success of the Family Medicine Centre was possible thanks to the exceptionally good cooperation and, on many occasions, assistance from the University authorities and the management of the University Clinical Centre, which we also count on in the coming years.



University Dental Centre

**MIROSŁAWA PELLOWSKA-PIONTEK,
M.D., PH.D.**
President of the Board of the University
Dental Centre, Medical University of Gdańsk

Dentistry is inseparably connected with the activity of the Medical University of Gdańsk. The Faculty of Dentistry of the Physician's Academy in Gdańsk was established in 1947; whereas in 1950, it was renamed the Faculty of Medicine Dentistry Division. It continues to function today in a form of a medical-dental study programme of the Faculty of Medicine. Currently, 345 students pursue their degree here.

For many years, the dentistry in Gdańsk has been most popular among students in the country. This is the effect of our approach to programme implementation, the emphasis we put on professional preparation for the practical acquisition of skills and carrying out everyday duties with passion. For the second time in a row we can boast the best results of the Final Medical-Dental Exam on a national scale and great popularity among graduates wishing to undertake postgraduate training at our University.



PROF. WIESŁAW SAWICKI
Dean of the Faculty of Pharmacy 2008-2016,
Head of the Department Physical Chemistry

We create a favourable scientific work environment for researchers, students and doctoral students. Recently, the University received funding to establish the Multidisciplinary Clinical Research Support Centre where we plan to open a dentistry research centre. Additionally, we take up the challenge of applying for grants in clinical research competitions organised by the Medical Research Agency. The experience of our University and the commitment of our team give us confidence that our efforts will be crowned with success.

Clinical activities are carried out in the University Dental Centre which is fully equipped for all areas of activity in dentistry. The rich experience, professional approach and committed team compensate for the infrastructural deficiencies of the facilities. Fairly worn-out infrastructure does not stop us from achieving ambitious goals and successes in teaching and research. We look to the future with great hope in regards to the planned construction of a new Dental Centre. Thanks to the commitment of the university authorities, the process of planning the investment and raising funds for the construction of our new headquarters has begun. Despite the current, hopefully temporarily, difficulties, we look to the future with optimism.

Faculty of Pharmacy as the Leading National Research Centre

2012

Since the beginning of the Faculty of Pharmacy, its functioning has been greatly influenced by the professors who came from the Stefan Batory University in Vilnius. The willingness to cooperate and develop and fascination with scientific work, which has always emanated from the work of outstanding personalities, masters and mentors, have over the years resulted in outstanding publication efficiency. It is impossible to mention all those who were able to instil the passion for science and take care of the most talented people. This includes, among others, prominent professors who unfortunately are no longer among us, Henryk Ellert, Stanisław Byczkowski, Józef Kołodziejewski, Stanisław Janicki, Zdzisław Brzozowski, Henryk Lamparczyk, Franciszek Sączewski and, of course, Roman Kaliszan. It is the position of Prof. Roman Kaliszan in the world of science, his international recognition, scientific achievements and research team that were of great

importance in obtaining the Leading National Research Centre status (Polish abbr. KNOW).

On 12th July 2012, when – accompanied by the then Rector Prof. Janusz Moryś – I received the status of a National Scientific Leadership Centre at the Chancellery of the Prime Minister of the Republic of Poland, the then Prime Minister Donald Tusk said that, as a citizen of Gdańsk, he was proud that our Faculty of Pharmacy, although relatively small, was a significant centre of scientific research in the country. What did acquiring that status mean for us? Above all, prestige and even greater scientific recognition. We still maintain the title of the leading, but also, in the opinion of many, the best faculty of pharmacy in Poland. At that time, the Faculty of Pharmacy had, and has retained to this day, the scientific category A+. Moreover, we strengthened internationalisation and global recognition; and, of course, received funds for further development, over PLN 35 million in total. We allocated



them following an extensive departmental discussion. We drew up regulations for several areas of quality support. They included mobility of employees, support for scientific activity which involved editing publications, organising conferences, new research projects, incentive financial support for the best publishers and for scientific associations, as well as extensive renovations of research laboratories and co-financing of equipment purchases.

Activities aimed at strengthening international scientific and research potential were very important. We have brought eminent scientists from abroad for lectures. These international contacts resulted in visits to scientific centres in the United States and Western Europe. One example of this cooperation is the activity of Prof. Arkadiusz Piotrowski in Department of Genomics at the University of Alabama, which resulted in his work having been published in *Nature Genetics* in 2014.

The key issue was also to take care of the development of young staff. We provided funding for young employees. With the KNOW funds, we launched 96 scientific projects through competitions for young researchers. The financial support contributed to the fact that they, too, started to publish and gain scientific achievements valuable in terms of applying for grants from the National Science Centre. Also, such activities made it possible to retain the most talented graduates for scientific work at the faculty. The number of doctoral students increased from 29 to 50 during the KNOW period.

That all allowed us to increase the level of scientific activity and scientometric parameters, especially in terms of quantity and quality of publications. We have strengthened international recognition and the impact of scientific research results, and we have developed teamwork in research. As a member of the Council of Scientific Excellence, I see how this is now appreciated.

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Thanks to the programme, I had the opportunity to attend prestigious conferences and training sessions in Poland and abroad.

ADRIAN SZEWCZYK, MPHARM.
doctoral student at the Department
of Physical Chemistry

I began my scientific adventure at the Medical University of Gdańsk during the 2nd year of studies as a member of the Student Scientific Association at the Department Physical Chemistry, headed by Prof. Wiesław Sawicki. As a part of tutoring provided by Magdalena Prokopowicz, Pharm.D., D.Sc. I had the opportunity to actively participate in research projects concerning the use of silica materials as bifunctional bone-specific drug delivery systems. At the time, I did not yet know how fascinating and fruitful the scientific cooperation would be.

At the same time, the Faculty of Pharmacy was granted the status of the Leading National Research Centre in the field of pharmaceutical sciences. One of the programmes included financial support for outstanding students and funding for their research projects. Thanks to the programme, I had the opportunity to attend prestigious conferences and training sessions in Poland and abroad. The programme funds allowed me to finance my research, the results of which were published in scientific journals. The exceptionally good experience of working with my scientific supervisor made me decide to continue my academic career at doctoral studies.



Cooperation with business

BARTOSZ WIELGOMAS, PHARM.D., D.SC.
Head of the Department of Toxicology,
Deputy Dean of the Faculty of Pharmacy

The Faculty of Pharmacy at our University can boast of a long-term scientific-research cooperation with the pharmaceutical and cosmetics industries. Its knowledge on the specificity and needs of the Polish industry led to the establishment of the Industrial Pharmacy postgraduate study programme in 1999. Prof. Stanisław Janicki, Head of the Department of Pharmaceutical Technology was its initiator on behalf of the Faculty. The studies continue to function today in a slightly modified form and are the only postgraduate programme in Poland in that field and with such a broad scope in Poland.

The pharmacy graduates are primarily prepared to work in open and hospital pharmacies, but a certain percentage of them start working in pharmaceutical or cosmetics companies. However, the uniform master's pharmacy programme does not provide the complete range of expertise and skills expected by employers in this sector. Therefore, a nationwide unique second-cycle study programme, with practice-based professional curriculum, was officially launched in 2017, i.e. the pharmaceutical and cosmetics industry. These studies could be initiated and organised thanks to our close cooperation with business entities located in the region. Polpharma SA and OCEANIC SA companies

offered not only experienced staff, but also their own laboratory and production infrastructure. Students can attend some of their didactic activities there, along with realisation of their implement diploma projects. This is what makes these studies unique, and gives graduates an extra advantage in the labour market, as they acquire more than half of their learning effects from professional practitioners.

Such close didactic cooperation provides favourable conditions to initiate scientific work and research projects, as well as commercial activities on the grounds of the staff expertise and the University's infrastructure including the extensive clinical base (e.g. the Phase I Trials Unit at the University Clinical Centre).

Realisation of implementation doctorates is a very significant component of the science-industry cooperation. It provides people employed in companies with the opportunity to conduct innovative research under the supervision of the Faculty's research staff. Currently, six such doctorates are being pursued.

PROF. WIESŁAW SAWICKI
Head of the Department of Physical Chemistry

Prof. Stanisław Janicki, a pharmacist and my academic teacher, was Head of the Chair and Department of Pharmaceutical Technology from 1979 to 2001. It was the Professor's contacts with Polpharma SA in the field of drug form technology in 1970-1990 that resulted in the effective cooperation. At that time, we brought more than 20 medicines to the Polish pharmaceutical market, especially in the form of prolonged-action pills. Prof. Zdzisław Brzozowski – the later Rector of our University – worked as a junior chemical engineer at the Starogard Pharmaceutical Plant as well. It was under the supervision of Prof. Zdzisław Brzozowski that two original Polish medicines, including Glipolamide, were developed at the Department of Chemical Technology of Drugs and implemented for treatment.

KATARZYNA WALIGÓRA-BOREK, PH.D.
Acting Director of the Centre
of Technology Transfer

Behind each and every initiative or action there is always a group of people. In terms of cooperation with business, the most relevant role is played by the MUG scientists with their research results forming the grounds for new inventions. On the other hand, the investors are an indispensable component of the commercialisation process, deciding to finance a given initiative or project – often at an early stage of an individual project – noticing its implementation potential.

The Centre of Technology Transfer (CTT) with its team of committed and professionally prepared people is a bridge linking the University with business. One of the key tasks of the CTT is to prepare proposals of technological projects with high commercial potential and present them to both large corporations, local companies and investment funds.

At the Centre we combine these two fields, science and business, by providing adequate support for the development of projects with their commercial and implementation potential. For three years now, we have been successfully implementing the Innovation Incubator programme of the Ministry of Science and Higher Education in the field of funding



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pre-implementation works. The obtained funding made it possible to implement more than 10 projects, participate in trade fairs and develop cooperation with various pharmaceutical and medical companies as well as investment funds.

Our team is also actively involved in activities aimed at raising awareness in the field of entrepreneurship and potential commercialisation of the research results among staff members, doctoral students and the remaining students at the MUG. We have been implementing a programme for European innovation centres (Hubs) as a part of the international programme run by the European Institute of Innovation and Technology (EIT Health). It enabled us to organise entrepreneurship promoting events, experience exchange workshops, start-up promoting initiatives and matchmaking events, bringing together scientists under various innovative projects.

Within the coming months, under agenda of the EIT Health, we are planning a series of activities which have a direct bearing on the committed stimulation of students' entrepreneurship and development of technology transfer opportunities. Our long-term strategy aims to enhance networking opportunities with regional stakeholders and the European Hubs under the EIT Health in order to actively stimulate innovation processes at the University.



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PROF. MAŁGORZATA SZNITOWSKA Head of the Department of Pharmaceutical Technology

The pharmaceutical industry holds a strong position in Poland. Thus, keeping in touch with this industry is vital for the Faculty of Pharmacy at the MUG as it educates not only future staff of pharmacies, but also of pharmaceutical factories or regulatory and legislative bodies associated with pharmacy. Since the pharmaceutical sciences are applied sciences they cannot adequately develop without such cooperation as well. The Faculty of Pharmacy has always been involved in research studies aimed at the development of new medicinal products. Prof. Stanisław Janicki and Prof. Zdzisław Brzozowski were significant figures at our Faculty who paid special attention to promoting cooperation with the pharmaceutical industry in the 1980s. It was then that scientific projects were launched which led to the introduction of medicines such as pills with glipolamide, Cegan and Argosulfan creams, and later on Plofed intravenous emulsion, to healthcare services.

Currently, this cooperation is being developed most significantly in the field of pharmaceutical technology. However, there are also ongoing analytical projects, among others projects relating to the bioavailability or toxicity of individual medicines. The offer for the industry also includes patents developed as a result of scientific work, including patents on medicinal scar sheets, microparticles with roxytromycin, raspberry extract, new antimicrobial peptides, new syntheses of therapeutic molecules or methods aimed to isolate biogenic amines. The several-year research project funded by the National Centre for Research and Development allowed the Faculty to develop the mini-pills technology, particularly as a new form of paediatric medicine. Thanks to the European Regional Development Fund, the state-of-the-art technology laboratories dedicated to cooperation with the pharmaceutical industry were set up at the Department of Pharmaceutical Technology. Vital cooperation has been strengthened through bilateral projects implemented under numerous master's and doctoral theses; in recent years, implementation doctorates have also been pursued.



Our long-term cooperation with the pharmaceutical industry has made us credible as the leading academic centre for training industry staff in Poland. The postgraduate studies in Industrial Pharmacy, which have been training up to 30 people per year for 20 years, enjoy a very good reputation. Its graduates often take key positions in the pharmaceutical sector. Noticing a strong demand for qualified staff in this relevant sector of economy, in 2017 we set up a 2-year master's studies programme: pharmaceutical and cosmetics industry.

In conclusion, let me say that maintaining a continuous relation with the industry have become an intrinsic part of our daily life, and there is no doubt about that we successfully build a scientific-industrial platform.



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The major component of support provided to our scientists is also assisting them to create application projects and run research studies in such a manner to reach the highest chance of commercialisation of their results, verification of the so-called patent clearance, business calculations, etc.

PROF. MICHAŁ PIKUŁA
**Laboratory of Tissue Engineering
and Regenerative Medicine,
Department of Embryology**

The Medical University of Gdańsk, with its extensive scientific, clinical and administrative facilities is an attractive academic centre for running a number of industry-assisted projects and practical implementations. In this regard, there are still a lot of challenges ahead of us and actions to be taken in various fields. Closer cooperation of the University and its individual research units with the industry sector is required. A broad range of projects, scientific and clinical facilities at the MUG could attract business to our University. Simpler procedures are required to run service-based research studies (in terms of time, documents). This type of services could be further enhanced by core facility laboratories equipped with developed research procedures fulfilling the GLP, GMP standards, so often required by the industry sector. The major component of support provided to our scientists is also assisting them to create application projects and run research studies in such a manner to reach the highest chance of commercialisation of their results, verification of the so-called patent clearance, business calculations etc. As it comes to the selected promising projects, we should strive at the continuation of the best research studies and commercialisation of their results, i.e. patent protection, establishing cooperation with investors, setting up spin-off/spin-out companies. I think that our University, which has become more and more recognisable in Europe and all over the world, can gain much from its cooperation with the broadly-understood business. However, it calls for a lot of commitment and further action to be taken by all of us.

Laboratory medicine

PROF. MACIEJ JANKOWSKI
**Head of the Department
of Clinical Chemistry**

From the very beginning of its existence – i.e. the establishment of the Physician's Academy in post-war Gdańsk – the Medical University of Gdańsk shaped the development of laboratory medicine in Poland. It was in 1945 that Prof. Włodzimierz Mozołowski, a student of Jakub Karol Parnas, a prominent Polish biochemist, Professor of Medicinal Chemistry at the Jan Kazimierz University in Lviv, started the formation of the Department of Medicinal Chemistry at the Physician's Academy in Gdańsk. The process involved the recruitment of experienced research and teaching staff which included, among others, Prof. Stefan Angielski. The dynamic development the Laboratory of Clinical Biochemistry which he established contributed to the formation of the Gdańsk school of clinical biochemistry, significantly influencing the subject's modern teaching methods at the medical faculty. Initiating the medical analytics programme at the MUG was another milestone in teaching evidence-based laboratory medicine. Its graduates – future laboratory diagnosticians – find employment in medical diagnostic laboratories, where they become participants of the diagnostic and therapeutic process by performing biochemical, molecular and cytological analyses in the biological material delivered to the laboratory. Laboratory medicine implemented today, whether in the form of algorithmic ordering of tests and then their comprehensive analysis by a physician, or in the form of individual analyses performed by laboratory diagnosticians in specialised laboratories, is an inseparable part of most medical departments.

It is extremely important for the quality of teaching in laboratory medicine, as well as in other medical disciplines, to have an appropriate didactic base that also provides access to modern scientific and research equipment. For this purpose, the Scientific and Research Centre of Laboratory Medicine at the MUG was established, where pre- and post-graduate teaching in laboratory medicine is conducted. The didactic activity of the Centre's personnel is accompanied by scientific activity based on the implementation of research projects, including in the field of experimental therapy of type 1 diabetes, pathogenesis of neurodegenerative processes and atypical disease, metabolism of extracellular nucleotides in (patho) physiological states, the role of oxidative stress in the pathogenesis of vascular endothelial dysfunction and disorders plasma lipoprotein metabolism.

Obtaining the prestigious status of a research university by the MUG under the *Excellence Initiative – Research University* programme may become the next important step in the development of laboratory medicine, especially if one takes into account the fact that oncology, cardiology and medicine cardiovascular and biochemistry, genetics and molecular biology have become the priority research areas. The scope of these areas also include civilisation diseases for which laboratory medicine can not only work towards laboratory markers allowing for early diagnosis of the disease and assessing the effectiveness of the implemented therapy, but also by distinguishing recommended laboratory test panels from the scope of guaranteed services which may contribute to increasing the traceability of these diseases. This prospectively may result in extending the life of patients and a more effective use of funds available in the state budget.



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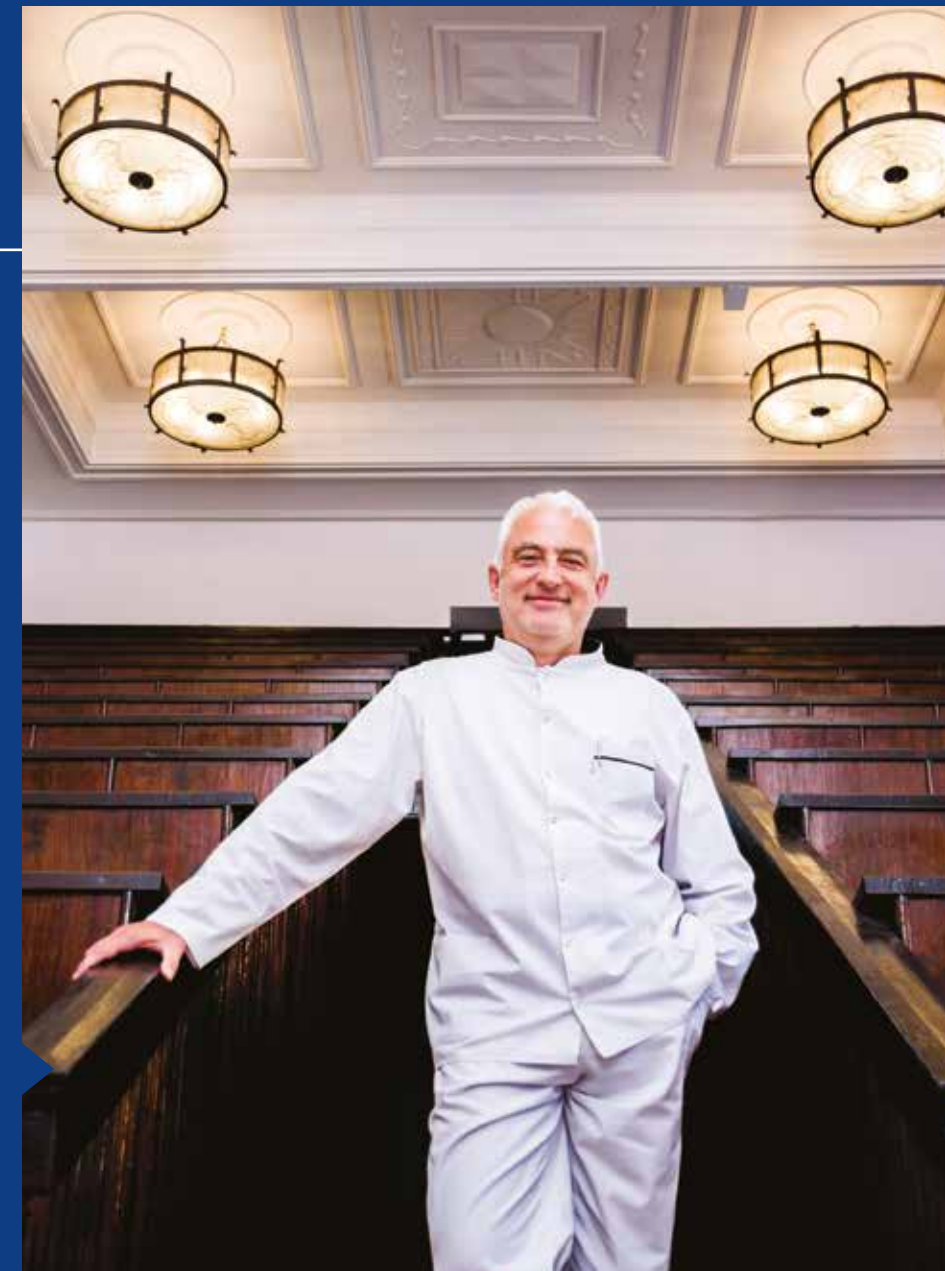
It is extremely important for the quality of teaching in laboratory medicine, as well as in other medical disciplines, to have an appropriate didactic base that also provides access to modern scientific and research equipment.

We seek unique solutions

**ASSOC. PROF. TOMASZ MAZUREK,
M.D., PH.D., D.SC.**
Department of Orthopaedics
and Traumatology

It was the year 2014. Aluminium profiles used to construct partition walls got plunged into the hands of a 24-year-old pianist from Cendry Wielkie while doing renovation works. Her right hand was badly injured so there was a risk she would not be able to bend her middle finger any more. This injury made a rupture of her extensor and flexor tendons within second and third fingers. She underwent a complicated surgery, during which orthopaedists stitched her cut tendons and nerves, put her hand in a plaster cast. After nearly four weeks they came to me. I decided to remove the cast. After four weeks of rehabilitation it turned out that a second surgery on her hand needs to be done because the third (middle) finger of her right hand did not bend. I decided to use an artificial silicon tendon – my modification of the American invention. Today the patient can play the piano again.

The prosthetic tendon, which I have patented, is an excellent solution if the original suture of flexor tendons fails. It allows for the reconstruct of the tendon sheath within which the tendon moves. This prosthesis is just a temporary



solution. It is put on for about 10 to 12 weeks and then replaced with a tendon transplant. In 2012, I applied for an industrial design and patent for this prosthesis. Works on its implementation have been still underway but they seem to be completed soon.

Hands are the most exposed parts of the human body. They are particularly vulnerable to injuries when working with machines. Several dozens of patients from the Pomerania region with hand injuries have already regained full efficiency of their hand movements after surgeries made with the use of the tendon I patented.

RAFAŁ PANKOWSKI, M.D., PH.D., D.SC.
Department of Orthopaedics
and Kinetic Organ Traumatology

Derotator is, in a sense, the culmination of my work in the field of spinal surgery, which I have been occupied with over twenty years.

Scoliosis is a multifactorial three-dimensional spinal deformity where, apart from its lateral bend and disturbed sagittal profile, vertebral rotation occurs. When the vertebrae rotate, ribs start to stand out and a rib hump grows on the back, a reason for complexes and frustration. By analysing the results of scoliosis treatment, one can learn that it is the elimination of the hump in the mechanism of derotation which determines the quality of a young person's life in the future.

Taking the aforementioned dependencies into account, the development of all spinal surgery treatment systems for scoliosis was aimed to improve the manoeuvre of the spinal derotation, i.e. reversal of its adverse changes. When operating on dozens of spines, I made use of various direct derotation systems available in Europe. Special implants were screwed into the spine with connectors inserted and then attempts were made to "unscrew" it. However, I could intuitively sense the limits of this manoeuvre.

In 2013, I introduced an intraoperative CT scanning to assess the effects of derotation. In the course of operation,

before and after the correction of rotation, I ran CT scanning on patients. It turned out that intuitive derotation is hardly effective, because it corrected just 15% of the curvature which accounts for the hump formation. I found out that the systems recommended for derotation offered by the reputable vendors, which seemed to be perfect, did not work as they should.

Moreover, too intensive derotation manoeuvres led to iatrogenic spinal fractures, which completely shattered the effect of arduous operations.

I decided to look for a solution and to objectively examine the extent to which this type of procedure can be performed in order to make it effective but also safe to patients. In order to achieve it, I designed a biomechanical test assessing the critical moment of the direct derotation force within the spinal cord which can be applied for the surgical treatment of scoliosis. I ran a series of experimental tests on corpses at the Department of Forensic Medicine at the MUG and LfC Laboratories in Zielona Góra. They were to simulate direct derotation on young people' corpses in order to determine the level of critical corrective force which can be applied under scoliosis operations.

A prototype of derotator was developed, soon followed by its clinical version. It is made of metal and is equipped with a specially calibrated dynamometer, which limits derotation within its effective and safe range, excluding the risk of iatrogenic spinal fracture. It is dedicated primarily to the surgical treatment of idiopathic thoracic scoliosis accompanied by costal humps.

So far, all the surgeries have been conducted with no complications, and the achieved derotation has been at an excellent level, ranging from 60% to 90%, i.e. four times higher than in the cases of using other derotation systems.

The industrial design of derotator has already been registered at the European Union Intellectual Property Office (EUIPO).

I have many other research ideas which could lead to the development of new inventions and patents. Among others, attempts have been made to develop a new cement for spine surgery with better elasticity.

PROF. MAŁGORZATA MYŚLIWIEC
Head of the Department of Paediatrics,
Diabetology and Endocrinology,
Laureate of the 2019 City of Gdańsk's
Jan Heweliusz Scientific Award

The Medical University of Gdańsk is my second home. I am honoured to work in a place which support us clinicians in scientific development. Here the clinic permeates into science and vice versa. In cooperation with immunologists, geneticists we are able to provide our patient with even better diagnosis, healthcare and monitor modern forms of therapy implemented during their treatment. Thus, by obtaining the results of scientific research we have a better insight into the patient's body and reactions that take place within. I am a clinician, the Clinic occupies an important place in my life. The treatment of children with diabetic diseases is my passion. Science allows me to learn the pathomechanism of the disease, have an impact onto its course, and provide actual assistance to the chronically ill patients. When I began my diabetological journey 25 years ago, the treatment of type 1 diabetes was very painful, with numerous complications ahead. Syringes, needle pricks when injecting insulin with pens, painful glycaemia measurements with a glucometer, unbalanced blood glucose levels constituted everyday life for a patient suffering from a type 1 diabetes.

On the grounds of currently conducted scientific research we have learnt that the auto immunological process with predominant pro-inflammatory factors damaging pancreatic β cells in the human body occurs prior to any typical clinical symptoms of type 1 diabetes. It means that the development of this disease must be stopped at Stage I and the so-called clinically silent Stage II. At Stage III, when pancreatic β cells are more than 90% damaged, the patient requires permanent substitution insulin treatment. Since 2012 an innovative regulatory T lymphocytes (Treg) therapy is being conducted in collaboration with Prof. P. Trzonowski and Prof. N. Marek-Trzonkowska. In 2014 our invention on the development of method for



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Prof. Małgorzata Myśliwiec with the members of the Department of Paediatrics, Diabetology and Endocrinology

cultivating regulatory T lymphocytes (Treg) was registered under the patent *A vaccine for the treatment of type 1 diabetes in children, the implementation of a cell sorter and a method of in vitro multiplication of Treg cells to produce a vaccine for the treatment of type 1 diabetes and in July 2020 under the patent Method of in-vitro multiplication of CD4⁺ FoXP3⁺ regulatory T lymphocytes.*

The most important task for a diabetologist is to maintain the diabetic patient's normoglycemia for as long as possible during a 24 hour period. For 11 years now, I have been making all efforts to ensure that children suffering from type 1 diabetes can benefit from the state-of-the-art technologies of insulin administration and glucose monitoring during the treatment.

Twenty five years ago, when a paediatric patient with type 1 diabetes was transferred to an adult diabetes clinic it was usually a young man with developing vascular complications

around the areas of his kidneys and eyes. Today, almost all our patients enter their adult life free of vascular complications. Working at the research centre allows you to make certain non-standard diagnostic and therapeutic decisions easier. As it was the case in 2004. I was treating a several week old patient with diagnosed diabetes who had to be administered insulin in a very small dose. I decided to use an insulin pump, which at that time was used in children over 13 years old. With my heart in my mouth, I connected the device to our little patient, having obtained all the necessary approvals from Prof. Anna Balcerska and Bioethics Commission beforehand. It worked! It was the world's first connection of an insulin pump to such a young child. It is a tremendous feeling when you make a non-standard decision which later becomes a widely used procedure. This patient, who weighed less than three kilograms at that time, is now 16 years old and is an excellent karate fighter.

We raise funds for basic and clinical research

**ASSOC. PROF. ANNA ŻACZEK,
M.D., PH.D., D.SC.**
Head of the Department of Translational Oncology and Vice-Dean for Internationalisation and Development at the Intercollegiate Faculty of Biotechnology UG&MUG

around me. All our achievements which are visible on the outside are just the tip of the iceberg. We are constantly making all efforts to apply for funds; but still, we get them for some of our projects only, and this is what you see. It should be kept in mind that each and every grant which we receive comes after our numerous attempts made and applications submitted. The statistics are ruthless in this regard and affect us as well. It requires a great deal of determination to, patiently correct our project draft one more time, address reviewers' opinions etc. Little is said about that and this is what our work looks like.

In my opinion, the status of a research university stands for both recognition and prestige, but also commits us to continue our work. It is a great chance for development for our University. What are the benefits? These include the development of priority research areas, and also the consolidation of various researchers' work within these areas. We have started to get to know one another and this is fascinating to me. We meet and learn how interesting and valuable projects we run. Our knowledge of one another's work may let allow to combine our efforts and run research studies more effectively. At the same time, I very much hope that cooperation between and among such priority research areas will also thrive. It will be a kind of large-scale projection of what I attempt to do on a small scale every day, working at this intercollegiate faculty in-between

I have a privilege and, at the same time, great pleasure of leading a 10-person team, consisting of, apart from me, 4 assistant professors. Each of them takes an active part in raising funds for our research projects. Hence I am not the only person who is successful in this regard. In principle, we manage to financially secure the operation of our research group by joint efforts. We diversify our areas of research and at the same time try to make them methodologically complementary. Thus, on one hand, we can constantly expand our set of research tools and, on the other, secure each other with funds for the research.

Where lie the roots of our success? In my opinion, people are the most important component: not only competent, intelligent, but also committed. Passion and commitment – these elements must accompany us for everything to work properly. I am fortunate to have such people



We need a shared vision. I can see a lot going on. What we are now seeing is a mass-scale, down-to-top mobilisation, and I feel that we need to a central-level coordination of the launched energy and all activities in order to make the most of it.

the two disciplines. Under each of my projects (and there have been over a dozen of them), I have always worked with clinicians. I sincerely hope that the same will take place at the level of the priority research areas; that people from within the core sciences will develop effective cooperation with others involved in research studies in the field of oncology or cardiology.

We need a shared vision. I can see a lot going on. What we are now seeing is a mass-scale, down-to-top mobilisation, and I feel that we need to a central-level coordination of the launched energy and all activities in order to make the most of it. Certainly, the leaders of individual areas also need organisational and administrative support.

PROF. BARTOSZ KARASZEWSKI
manager and principal investigator
of the project entitled
Reperfusion thrombolytic therapy for ischaemic stroke in patients on non-vitamin K antagonist oral anticoagulants
funded by the Medical Research Agency

In this project, we will investigate the efficacy of a new ischaemic stroke therapy scheme for people who are on so-called oral anticoagulant treatment.

This is the most numerous group of patients with acute stroke, who – in spite of a proper and reasonably early reaction to its first symptoms – cannot be offered any routine treatment that potentially could lead to restoration of cerebral blood flow and thus might provide a chance to radically improve their outcomes, except for a relatively small percentage of these patients who may be treated with mechanical thrombectomy.

Although oral anticoagulant therapy indeed significantly reduces the chance of ischaemic stroke in people in a particular risk group (i.e. those with atrial fibrillation and other

specified diseases), this risk is still much higher than in the general population. In Poland, as many as 6,000–8,000 such patients suffer from acute cerebral ischaemia every year.

The project has a multicentre design, and our foreign partner in this study is University College London and the British National Hospital for Neurology and Neurosurgery.

MACIEJ BOBOWICZ, M.D., PH.D.
Department of Oncologic Surgery

The collection radiological images (mammography, computed tomography, magnetic resonance imaging) and clinical data on 25 000 patients in Europe with breast, colorectal and liver cancer is the key objective of the international project entitled: *European Cancer Image Platform Linked to Biological and Health Data for Next-Generation Artificial Intelligence and Precision Medicine in Oncology*. The EuCanImage platform is another step towards personalised medicine in radiology and oncology.

The MUG became a member of an international research consortium consisting of 20 universities, research institutes and companies from the radiology and artificial intelligence sector. In autumn 2020 we commenced the realisation of the project financed by the European Commission under the Horizon 2020 Framework Programme for Research and Innovation at the Artificial Intelligence for Health Imaging Competition.

The data collected will be applied for training, validation and testing of neural networks based on the latest models of the so-called deep machine learning. We intend to develop algorithms which support the work of radiologists at various stages of diagnosis, treatment of neoplastic diseases and monitoring of their results.

The project is unique in many aspects. First of all, we have been creating the largest European platform



of cancer radiological images to train deep learning algorithms. A part of this collection will be made available free of charge to European researchers, which will significantly reduce costs and shorten time needed to implement further projects. Ultimately, the EuCanImage platform will be linked, among others, to the European Genome-Phenome Archive, which will let to develop multidimensional artificial intelligence solutions aimed to integrate data at the clinical, organ and molecular level, creating cancer signatures referring to individual patients.

As the leader of the clinical part of this project, I participated in the development of its substantive fundamentals and research-related issues, and in the forthcoming years I will be accountable for the coordination of clinicians' works. The project's budget is almost EUR 10 M, of which the MUG is about to receive over EUR 250 thousand.



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UNIQUE SCIENTIFIC AND DIDACTIC UNITS

Developmental projects

PROF. JACEK BIGDA
Vice-Rector for Development and Education

Observations of and contemporary needs resulting from changes in the medical care environment have prompted us to introduce changes in the area of didactics. On the one hand, these transformations are a response to technological developments and the ways they continuously shape the market offer. On the other hand, we now educate substantially more students than 20 years ago, even as patients' availability has diminished due to shorter hospital stays. Medical simulation laboratories have thus been established at our university to improve the quality of programmes preparing our students to work in clinical environments. Simulations allow students

from various fields – not only medicine but also, among others, nursing and medical rescue – to be much better equipped to start work on hospital premises. Our laboratories enable us to conduct selected exercises efficiently and to apply a uniform, objective student assessment system. All those enrolled can carry out specific procedures under identical conditions.

An equally important aspect that we endeavour to incorporate into the education process is e-health technologies, including telemedicine. These innovative tools improve patient care, as well as constituting a new way of collecting, analysing and processing the large volume of data needed by medical professionals, healthcare units and health system organisers. Our healthcare model continues to be more hospital-centric than Western Europe's, but our approach is slowly changing if only because this kind of care is extremely costly. In the future, medical services will be more dispersed and integrated into home care and social assistance. This system will require novel tools to facilitate communication with patients and medical teams.

Broadly understood, e-health is increasingly permeating various fields. Digital healthcare is about not only communicating with patients but also refining how our units and benefit settlements function. Given this trend, we need to teach our students to use new tools. We have to prepare them for a time when healthcare may look quite different since its paradigms may change significantly in the next 10 to 20 years. Students who graduate now could be on the



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Medical simulation laboratories that have been established at our University improve the quality of preparing our students for work in the clinical environment. They allow the students of various programmes – not only of medicine, but, e.g. nursing, medical rescue – to be much better prepared before starting their work at the hospital premises.

market for much longer than that. They should be made aware of the challenges they will face in the future.

One more important issue merits greater elaboration. We wish to pay more attention to our graduates' hard and soft competencies and skills, including their ability to communicate with patients, their family and relevant teams. This issue has been somewhat underrated thus far. Students do not acquire these social competencies in the earlier stages of our country's education system. This serious problem also entails setting ourselves the task as teachers to pay closer attention to soft skills, educating ourselves so we can foster these competencies among our students more efficiently.

PROF. LESZEK BIENIASZEWSKI
Head of the Medical Simulation Centre

Medical simulation is the fastest growing field of medical education, using new technologies and the most advanced patient simulators. The MUG's Medical Simulation Centre allows for a real-time recreation of the activities carried out in the conditions that prevail in the hospital emergency room, ward or outpatient clinic. The investment itself has highly improved the efficiency of clinical-based teaching. The didactic classes concentrate on students' active participation in clinical scenarios with the use of advanced patient simulators mirroring the cardiovascular and respiratory functions. Due to their high-tech sophistication these simulators allow for realistic imaging of a bleeding injury. Conducting an ECG test, handling a defibrillator, performing intubation or intravenous injections on the simulator allows students to improve their clinical skills and be prepared to act efficiently in direct contact with patients.

Under controlled and monitored conditions the students are able to perform a simulated rescue operation, e.g. after a car crash: from resuscitating a patient *in situ*, to



transporting him in an ambulance to the emergency room at MSC. Whereas, the simulation of events in an operating room helps to familiarise oneself with the specifics of working in such a place, including the including preparations for surgery, behaviour in an operating block or team co-operation.

After the realisation of the given scenario students can watch or listen to their recorded performance. During the discussion with their academic supervisor they elaborate on both the correctly conducted actions and those which require correction. It is an excellent way of acquiring knowledge, allowing one to be better prepared for the challenges the physicians face every day.

PIOTR POPOWSKI, M.D., PH.D.
Centre for Integrated Care and e-Health

The idea of undertaking the integration of healthcare by the Medical University of Gdańsk stems from the patients' actual problems, who are often left with no other choice but to agree on 'silo' solutions or episodic treatment care. For over a dozen years, the team of Prof. Ewa Jassem from the Clinic of Allergology has been conducting activities related to the integration of medical and social care treatment in a project-driven

and structured manner. Its rich experience is the legacy of the Pomeranian hospice care treatment or paediatric teams – in particular that of Prof. Jolanta Wierzba – and pertains to the treatment of children suffering from rare diseases. The oncological, neurological, cardiological, geriatric or family medicine circles notice that global successes, measured by a longer life and better quality of life, often result from the coordination of care treatment resulting from better organised and managed processes and institutions. It requires, among others, the application of e-health tools, which allow for the collection and processing of data in order to optimise decisions and affect the access and quality of care treatment. In 2013, the Medical University of Gdańsk set up a laboratory of the Integrated Care and e-Health Centre and commenced cooperation with business circles and local governments, with which it conducts pilot operations in the field of integrated care programmes.

In 2014, the University was granted funds for the realisation of the project entitled *New Infrastructure and Equipment of Workshop Premises for the Practical-Profile Faculties at the Medical University of Gdańsk and the Pomeranian Academy in Słupsk* Under the task *New Infrastructure and Workshop Equipment for Integrated Healthcare and Telemedicine*, a special unit was established to train competent staff in the integration of care treatment and e-health. In doing so, we cooperate with the Pomeranian Association of Healthcare Employers, with which we have also run other activities aimed at the coordination of care treatment. Apart from setting up a new area of competence for students and healthcare workers, the Centre for Integrated Care and e-Health, which will be located at the



The oncological, neurological, cardiological, geriatric or family medicine circles notice that global successes, measured by a longer life and better quality of life, often result from the coordination of care treatment resulting from better organised and managed processes and institutions.





unit, takes an active part in the transformation of the healthcare system through the Pomeranian Partnerships for Integrated Healthcare, established in 2015. It also supports the activities of all circles which develop solutions aimed to provide care treatment based on the patient/person-centric paradigm. The experience gathered by organisations such as the International Foundation for Integrated Care and Integrating the Healthcare Enterprise, which the MUG is a part of, is a signpost for the Centre's performance.

PRZEMYSŁAW KRĘCIEWSKI
Operational Unit for *Power 3.5* Project

The Ministry of Health announced a competition with a certain amount of funding for medical universities. I do not remember the exact allocation amount, but it was about PLN 280 M to be distributed to all the medical universities i.e. beneficiaries of this competition. More than 20 M was allocated to us. Before we started preparing our project application, all the universities were audited. Specialists from the Ministry came and diagnosed our needs. When preparing our application, we had to make use of the aforementioned audit as a source of information for the planned operations. In the next phase of negotiations with the Ministry, we finally agreed on the scale and scope of our project. We knew what amount of money is at our disposal and on what we can spend it. We could spend no more than 70% of all our funds for the project to cover the so-called 'hard' expenses, e.g. for construction works, renovation of rooms or purchase of equipment. 30% of the funds shall be spent on the so-called 'soft' expenses, such as training courses or trips for academic teachers.

Earlier, as the university, we built the Medical Simulation Centre. In the project submitted to the Ministry, however, we only sought funds to purchase medical simulation equipment for didactic rooms. Most of the building has already been equipped.

International Research Agenda

ASSOC. PROF. JAN DUMAŃSKI, M.D., PH.D.
Director of the International Research Agenda

I left Poland at the age of 24, just after my medical studies. I worked in Stockholm for 18 years and took a post in Uppsala after accepting the professor position. This is when Arkadiusz Piotrowski approached me. I had money, vacancy, so I gladly took him to my team as post-doctoral researcher. This is where it all started. Then Arkadiusz moved with me to the States, where I had a research group. Finally, I went back to Sweden, and he returned to Poland. It was then that he began to look for opportunities to cooperate and fund joint research studies. At the Foundation for Polish Science, he came across the International Research Agendas Programme which obliged me to work in Poland at least half the time, but I could still keep my research group in Uppsala. That is exactly what I do.

We started working at the MUG two years ago. The Centre is pillared on three research groups. Our work primarily consists in cancer research studies and testing. One of our key objectives is to develop a biobank aimed to analyse human cancers. We cooperate with five hospitals in Poland and have recently recruited over a thousand patients for our biobank. We are very proud of it, as this data collection is extraordinary and in 2-3 years' time we can have one of the largest biobanks in Europe. All the samples we collect make the grounds for various ongoing research projects. It primarily refers to the factors which predispose the development

of common neoplastic diseases – breast, prostate, bladder and colorectal cancers.

We intend to publish information on this collection at several European websites, which will let us to establish further cooperation with other units, centres and groups not only in Poland but also abroad. This is one of the objectives of the International Research Agenda. Biobank is one of the ways to achieve it.

The MUG is a thriving national scientific and didactic institution. However, if we look at it from an international perspective, there is still much to be done.

PROF. ARKADIUSZ PIOTROWSKI
Department of Biology
and Pharmaceutical Botany

We, the scientists, are constantly looking for new sources of funding. Even when implementing projects, we already plan new ones, look for new opportunities. When I found out about the International Research Agenda competition, I considered it a great opportunity, but I knew it would not be easy. It was necessary to find a scientific partner who conducts world-class research studies. I knew a few such people, but I also knew that most of them would not be interested in working in Poland. They would be happy to enter the project, but on condition of implementing it from their own country, or possibly visiting us from time to time. In case of



this project, however, it was required that the project manager must spend at least 50% of his/her time in Poland and be personally involved in research studies. Prof. Jan Domański from the Uppsala University was the only person I was able to convince. I did my post-doctoral fellowship under his supervision, and for years we have also been working more or less intensively together. We prepared the application, submitted it, went through several stages, and we succeeded. There have been issues along the way all the time, but it is up to us to deal with them.

The International Research Agenda enabled us to move to a higher level of quality, this is an opportunity for our science as well as for the University. In terms of conducting research, this is not a quantitative but a qualitative change. We may employ very good specialists, expand the scope of our research and do it on a grand scale. The Agenda also stands for prestige, which I think was a significant factor when the MUG was granted the status of a research university. That is how it works in science – every new achievement, development or success makes it easier to obtain further funding, expand research activity. It is all interconnected.

We have already managed to convince several large clinical units, chiefly from the field of oncological surgery, also at the University Clinical Centre, to cooperate. At the moment, we have got more than 70 colleagues involved. We manage to obtain unique material and valuable medical data. I consider involving clinical partners as a great success because not only do they provide us with samples, but they also want to participate in our research studies and continue them later. The commercialisation of such research, which is one of the assessment criteria, is important as well. I thought that this would be the biggest problem, but for the time being it seems quite easy to achieve, since we have already established cooperation with business. We managed to set up, among others, a sample documentation system i.e. bio-banking system which integrates clinical test data. This is a cloud-based solution; we can observe in real time as both tests and clinical data referring to them are being directly transferred to our project. This IT system has been developed for two years now and we have already entered standard commercial cooperation. I think we will manage to commercialise it soon.



Phase I Clinical Trials Unit

BLANKA SEKLECKA, MBA, PH.D.
Manager of the Phase I Clinical Trials Unit,
Department of Oncology & Radiotherapy

Jack Ma once said *Today, making money is very simple. But making sustainable money while being responsible to the society and improving the world is very difficult.* This quotation perfectly reflects the area of my activity. As a scientist and enthusiast, I want therapeutic results for our patients; as the Unit's manager, I strive for economic results. This difficult role makes me face constant challenges in which I enjoy complete fulfilment.

The Phase I Clinical Trials Unit is the only multidisciplinary phase I clinical trials unit in Poland and one of the few in Europe. After a year of its operation, the number of research studies with open recruitment conducted at the Unit amounts to 23, and 9 are under negotiation. We have set the bar very high for our competitors by assessing the effects of treatment under multidisciplinary clinical consultations, ensuring the specific principles on patient's safety and reporting the procedures performed in real time. Our attractiveness derives from the following factors: a large group of

Translational Medicine Centre

patients, the research conducted with the use of the latest technologies and research tools, and relatively low costs of the services provided. The combination of the MUG's scientific staff and the Unit's clinical facilities let us run the most difficult research studies requiring the verification of molecular predictive factors by means of the methods applied at the modern pathomorphological and genetic laboratory.

The strategy for the coming years is, among others, to increase the Unit's international recognition. Due to the increased number of the research studies conducted, the Unit will require extra medical, laboratory and IT equipment and, most importantly, additional staff and investment in their training.

This is people who make our success. They are the real engine of each and every business. The key objective of my work is to find, manage, inspire and keep them at the Unit. A motivation-driven team of people has incredible persistence in achieving the goal they wish to achieve. In such a group, the accomplishment of tasks becomes easy, and daily work becomes very effective.

PROF. JACEK JASSEM
Head of the Phase I Clinical Trials Unit
Scientific Council,
Head of the Department
of Oncology and Radiotherapy

The University Clinical Centre, which I am proud to be a part of, conducts more clinical studies than any other centre in Poland. This has required significant investment, including investment in professional staff, but it has proved worthwhile. Study coordinators were hired a few years ago, and with support from administrative, financial and law advisors, they drive seamless, efficient clinical studies.

Any organisation that aims to be successful needs not only professionals and appropriate research tools but also infrastructure. A lack of infrastructure has seriously limited

our ability to conduct fascinating research projects, in particular phase I clinical trials. These trials must meet several stringent conditions, as new medicines are administered to volunteers to test treatment safety and to evaluate potential side effects. In this hospital, patient safety has always been a priority. To err on the side of caution, the equipment in our hospital units is frequently similar to that of intensive care units. We must be prepared for various situations that patients may experience. Their physiological functions and body fluid parameters are continuously monitored and recorded. Additionally, data from early clinical trials are much more complex than those acquired from later-phase clinical studies, and this data must be handled by highly qualified personnel. Unfortunately, there was previously no unit in this hospital that could perform clinical studies of this kind. We looked forward to having such a facility here; at that time there was only one Polish centre specialising in phase I clinical trials in oncology.

Fortunately, our long-term efforts proved successful, and a similar centre was set up in this hospital. Because we are employing fantastic, dedicated personnel, all of whom have been provided with training in the world's best institutions, the Phase I Clinical Unit is fully operational. It is the pride of the university and the hospital. I am confident that it will serve patients well, in particular those for whom the only chance of survival is treatment with lifesaving, innovative procedures in centres like ours.

Since the unit started operating in June 2019, numerous clinical studies have already been carried out. In recognition of the value of the work being conducted in this unit, leading international pharmaceutical companies intend to co-operate with us in developing new medicines. We are also in contact with the Gdańsk University of Technology, particularly with their anti-cancer medicine unit at the Faculty of Chemistry. Hopefully this co-operation will develop further, and we will have an opportunity to evaluate their products.

In summary, the ground-breaking, state-of-the-art solutions, higher standards, hard-working personnel and everything else that we have done until today have paid off. The unit has become a prestigious part of our hospital and the university in terms of new treatment options, scientific activity and publication records.





Nowadays, however, the Centre does not stand for joint projects only. It is also a shared coworking and research space equipped with the best equipment used by many teams.

From the left: Assoc. Prof. Marcin Hellmann, M.D. Ph.D., D.Sc., Elżbieta Stankiewicz, Ph.D., Milena Racis, M.D., Ph.D., Gabriela Gierszewska, Anna Szyndler, M.D., Ph.D., Anna Kowalczyk, M.D., Ph.D., Prof. Krzysztof Narkiewicz, Joanna Pokusa, Klaudia Malisz, Beata Graff, M.D., Ph.D., Wiesława Kucharska, Magdalena Dzitkowska, Ph.D., Jacek Wolf, M.D., Ph.D., D.Sc.

PROF. KRZYSZTOF NARKIEWICZ
 Chairman of the Scientific Council of the
 Translational Medicine Centre, Head of the
 Department of Hypertension and Diabetology

The idea to establish the Translational Medicine Centre was conceived as a result of our scientists' needs, who felt a bit isolated and had no favourable space for cooperation

beyond their own team. It all started with my conversation with Prof. Jacek Jassem. We agreed that it calls for a change and we shared our opinion with Prof. Marcin Gruchała, who was then Deputy Vice-Rector for Student Affairs. Prof. Janusz Moryś, the then Rector, approved the idea.

At the very beginning our Centre was a kind of a *think-tank*, an incubator of shared ideas. The first step was to make people get to know one another. Every week, for two or three years, we met regularly for weekly working meetings. Then, an idea came up to go to Sobieszewo and have a brainstorm there. Our first trip was to make various

teams get acquainted with one another, share knowledge about who does what and what ideas they have to cover with their research. It was often so that we knew a person's name but did not know what he/she looked like or did in detail. These annual trips still serve this purpose. This is a sort of idea incubator within which several projects involving numerous university units have already been developed.

Nowadays, however, the Centre does not stand for joint projects only. It is also a shared coworking and research space equipped with the best equipment used by many teams. The section on cardiovascular tests and research studies was set up first, and now the section on metabolomics, genetics and proteomics research is under development. Magnetic resonance imaging will be probably the next step. Our Centre is a university-wide unit, its activities are coordinated by Jacek Wolf, M.D., Ph.D., D.Sc. Apart from me, the Scientific Council is made up by Prof. Jacek Jassem, Prof. Jarosław Sławek and Prof. Małgorzata Sznitowska.

PROF. JACEK JASSEM
 Head of the Department
 of Oncology and Radiotherapy

A few years ago, I met up with Prof. Krzysztof Narkiewicz at an airport, and the idea emerged of establishing a central translational research unit at the university. In our opinion, each unit should not need to develop its own research, tools and infrastructure. A more rational approach in both economic and operational terms is to set up a shared, well-equipped base – a core facility – to which people with strong ideas could come and implement them, which is how research works at good universities. Prof. Narkiewicz has coordinated all the work on realising this idea, and, thanks to his persistence and consistent efforts, our plan has come to full fruition. Concurrently, I was involved

in establishing our Phase I Clinical Trials Unit, so the two units were created almost simultaneously.

PROF. PAUL GRÜNDEMAN
 Utrecht Medical Center,
 Visiting Professor at the Department of
 Cardiac and Vascular Surgery of the UCC

Strong alliances between people are built on idealism. The unique Amsterdam-Gdańsk connection, which goes back centuries, was revived in the 1970s to help sick heart patients by initiating open-heart surgery in the Clinical Centre of the Medical University of Gdańsk. I was part of the pioneering operating heart team led by my father, Prof. Anton Gründeman who aided Gdańsk in starting a heart clinic. He did that by training a young talented Gdańsk surgeon Mirosława Narkiewicz, Ph.D. in his Thoracic and Vascular Department in Amsterdam in 1972. Through multiple annual visits, followed by patient operations, I became strongly involved with the medical staff and made many friends for life. Under the great leadership of Prof. Mirosława Narkiewicz, the Gdańsk University Clinical Centre matured into a respected, fully equipped cardiac surgical unit. The courage and persistence of the entire team, from doctor to nurse to technical staff, is still on my retina. Later on, I changed my professional career into experimental heart surgery and innovation. In the 90s, I introduced here the so-called Octopus beating heart method – a method of obviating the use of the heart lung machine in coronary bypass surgery, of which I was one of the Utrecht Medical Center's inventors. It felt like the most logical thing to do. It is with great pleasure that I noticed that my colleagues in Gdańsk became skilled leaders in less invasive beating heart coronary surgery. More recently, I was invited by Prof. Krzysztof Narkiewicz, son of the late Prof. Mirosława Narkiewicz, to join him in the new Translation Medicine Centre as a Visiting Professor in the cardiovascular field. This



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The strength of the Centre lies in creating a shared work space for representatives of various disciplines, both researchers and clinicians, facilitating their cooperation.

unique initiative was set up by Prof. Jacek Jassem, Prof. Tomasz Smoleński and Prof. Krzysztof Narkiewicz with the aim to seek new paths, new treatment options, new therapies, new science for the benefit of patient care in optimising the task forces in a multidisciplinary fashion. I am sort of a mentor in the function that I do. I guide processes and seek innovative opportunities, and invite people to the Translational Medicine Centre to get more efficient output of the talents and the scientific power that is present at this University. Now given the fact that this venture is granted by the government – under Excellence Initiative – Research University agenda – it is the greatest opportunity that this university hospital and the Medical University has to boost good assets that are here, with the proper leadership of excellent researchers.

The strength here is to merge representatives of various disciplines who otherwise would not find each other to work together, both researchers and clinicians. I do not see a separation between the science, clinic and teaching. I find it artificial. It is my personal experience you can build great things when you build personal alliances. There is only one common goal which is, in the words of my father, a healed patient. I highly support the creation of the Cardiovascular Centre which guarantees top quality patient-centred medicine by talented healthcare workers of University Clinical Centre under modern leadership.

PROF. DAME ANNA DOMINICZAK
Regius Professor of Medicine,
2020 Vice Principal and Head of College
of Medical, Veterinary and Life Sciences,
University of Glasgow, Director
of Laboratories, NHS Test and Trace

The Glasgow team's professional experience has shown very clearly that the best projects eliminate the division between the core and clinical sciences and unambiguously

define priority areas. I am glad that the Medical University of Gdańsk gives priority to the development of modern scientific activities, and the Translational Medicine Centre provides evidence on that. Now, the Medical University of Gdańsk, acting together with the city, region, hospital and business, has got enormous potential. Being a graduate of the MUG, I am very proud of these excellent achievements.



Cardiovascular Simulation Centre

Training courses at the Cardiovascular Simulation Centre are organised as a part of the project entitled: *Improving the quality of highly specialised postgraduate education in cardiology* financed by the Ministry of Health from the European Social Fund as a part of the Operational Programme Knowledge Education Development for 2014-2020. The project's budget, which in addition to training courses, also assumed the purchase of specialised equipment, exceeds PLN 10 million. The Cardinal Stefan Wyszyński Institute of Cardiology partners the project.

PROF. MARCIN FIJAŁKOWSKI
1st Department of Cardiology, coordinator
of the Cardiovascular Simulation Centre

The unique character of the Cardiovascular Simulation Centre derives from that specialist physicians, who often have extensive clinical experience, learn very advanced diagnostic and therapeutic methods on medical simulators. Our objective was to develop a programme which would take into consideration a number of clinical aspects and at the same time would be attractive in its form. We

wished to put apart boring theory and focus thoroughly on practice. Simulators are useful both for beginners and for people who have run similar research studies and tests for many years. They are equipped with a set of advanced functions, for example, three-dimensional imaging, multi-dimensional imaging, vast spectrum of patients suffering from various diseases, including fairly rare ones. For example, our students are trained in transesophageal echocardiography. On our simulator, of which we are exceptionally proud, angioplasty or structural procedures on heart valves can be performed.

The application of phantoms has significantly speeded up highly specialised education. It is not advisable to learn advanced procedures directly 'on patients' because complications may have very adverse consequences to them. There are also scenarios on our simulators which take into account complications which may even lead to the 'patient's' death. It can occur when a mistake is made during training. At our Centre, physicians are provided with adequate conditions to train procedures where the margin of medical mistake is narrow. What is noteworthy is that the training itself does not concentrate solely on teaching manual skills or acquiring knowledge on the medical equipment later used in clinical treatment. It is also learning to operate under stressful conditions. This is what makes this place unique. At the moment it is the only highly specialised centre of this kind in Poland and one of the few in Europe.

Learning on simulators makes sense especially nowadays. Due to the epidemic situation, there are limited opportunities to work with patients. There is a special educational programme for people who were not able to perform transesophageal testing before. At each stage it precisely checks whether a series of projections they get are close to the perfect ones. Even for me, and I have been doing this test for several years now, it has been a challenge to go through the whole educational path. There are also doctors who want to focus on imaging one heart structure only. They can test only this particular projection on different patients, in different clinical cases. These are highly specialised tasks. Most of our trainees, upon returning to their daily work, appreciate this practical, clinical aspect of training courses.

Although the procedures we teach here are highly specialised, there are also students at the Centre. Under our supervision, fifth-year students of the Faculty of Medicine can perform transthoracic tests as a part of their cardiology classes. We treat it as a good opportunity to encourage them and show them the full range of diagnostic possibilities.

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Rare Diseases Centre

PROF. ALEKSANDRA ŻUROWSKA
Head of Department of Paediatrics,
Nephrology and Hypertension,
Head of the Rare Diseases Centre



The Rare Diseases Centre was established as a response to the existing demand made by patients with rare diseases, i.e. diseases affecting less than 5 people out of a population of 10 000. It is estimated that 38 million people in Europe are affected by them. These are often congenital or genetically conditioned diseases

The concept of establishing the Centre was developed when 3 paediatric clinics joined the newly-established European Reference Networks for Rare Diseases (ERKNet – Prof. A. Żurowska, ERN PaedCan – Prof. P. Czauderna, Prof. E. Bień, eUROGEN – A. Gołębiewski, M.D., Ph.D., D.Sc., ITHACA – Prof. J. Wierzba). Its establishment facilitates the coordination of scientific, didactic and organisational operations, as well as the promotion of national and international activities run by the University in the field of rare diseases. The key partners of the Centre include the genetic clinics, Biobank, Central Laboratory and patients' organisations.

Within the first year of its operation, the MUG was appointed to organise the 1st General Assembly of the European Joint Programme for Rare Diseases (EJPRD), the fund of which is intended to finance operations to deal with rare diseases in Europe within the 5 forthcoming years. The establishment of this Centre also facilitates the adaptation of our University to the legislative and organisational fundamentals developed in the European Union in the field of research and organisation of treatment addressed to patients with rare diseases. This will make it easier to implement the guidelines of the currently emerging National Program for Rare Diseases and to provide their common nomenclature and classification.

The Rare Diseases Centre cooperates with the Centre of the same name at the University Clinical Centre. The head of the latter is Prof. Jolanta Wierzba, and its aim is to provide and organise integrated care treatment for the sick. This cooperation will result in the accumulation of knowledge on rare diseases, setting up new registers, facilitating access to hard-to-reach diagnosis, developing advanced methods of operation and care treatment, as well as in providing patients and medical staff with new scientific research and their results, and obtaining access to the already operating European consultation platform for specific cases without the need to travel to foreign centres.

Towards excellence. Status of a research university for the Medical University of Gdańsk

2019

PROF. TOMASZ BĄCZEK
Vice-Rector for Science for the tenures
of 2012-2016 and 2016-2020,
Head of Office of the *Excellence Initiative*
– *Research University Programme*

The preliminary signals of conceiving an idea for research universities reached me at the stage of drafting a new act on higher education and science. I was happy that we were heading towards the Western world, that there finally will be more scientific competitiveness, that people will start being interested in practising science with reference to what is happening in the world. On the other hand, I had concerns about the realisation of the idea, on how that will be documented and then implemented.

The competition was announced at the beginning of April 2019. The document that we were to prepare was an application concerning the scientific policy of the University

for the next 7 years. We had to take numerous entities, people and all kinds of events into consideration. It was very difficult to put it all together. It is impossible to list all the problems we had to resolve along the way. It was indeed a great challenge. Hence, the last year's spring was very hot, and not only in terms of the weather outside. Obviously, looking back, I can also see a specific attraction, a major intellectual challenge. In July, when we filed the application, the great effort was mixed with equally great satisfaction. I had been the vice-rector for science for eight years, and in a way, we managed to sum up the last 7 years in the application and described the effects generated by our scientific policies until that time. We have also set prospects for the future.

Another stage of the selection included meetings with experts, reviewers. That was somewhat less stressing as the application had been structured, the concept described. However, it proved to be harder than it seemed. We had to thoroughly think of how to present our concept in the most attractive, reliable, accurate and professional manner possible. It was aimed at convincing the members of the commission that – regardless of whether we would be included among the top universities – we have already been profiling our scientific

activity in same world-class, professional manner and will continue to do so. It seems we succeeded. We were evaluated by top class professionals. That was an extraordinary and uplifting feeling to meet people with such broad horizons.

The rector, three leaders of Priority Research Areas, Tomasz Klejnert and myself travelled to Warsaw for the evaluation. We were all fascinated with the project and everything that was going on, full of enthusiasm, which was probably showing. The presentation had been prepared by Tomasz and

and fundamental sciences based on biological, biochemical, chemical research are crucial research platforms and are of interest to a majority of our researchers.

We plan to intensify cooperation with renowned centres, in particular those to whose ranks the MUG is aspiring. Thereby, we will gain access to knowledge and resources of entities in a higher league.

We will launch a new model of recruitment and development of young outstanding researchers. The most promising students will be provided with personalised support programmes and international networking.

The implemented changes, including the establishment of Central Administration for Research (CA4RE), will take some load off researchers who will have more time for their research. The Innovation Incubator and Accelerator will support scientists in their cooperation with business and the MUG will use its achievements in developing spin-off companies. With the Scientific Publications Excellence Centre, the University will support in translations and communication processes of research projects. The Centre of Biostatistical and Bioinformatic Analysis will improve the search efficiency of data sets to find dependencies that may underlie new research and innovative implementations.

We plan that after completion of the programme (2019-2025), the MUG will be on its way to join the TOP 100 best universities in the world (in the area of clinical medicine) in the prestigious Shanghai Ranking.

MAŁGORZATA SZYDŁOWSKA-CZYŻAK Head of the Department of Research Projects

It is no coincidence that the Medical University of Gdańsk has been awarded the status of a research university. That was not just a matter of a well-written application. It all started earlier, from excellent parametrical evaluation of the Faculties, as a result of which we were selected as one of 20 best universities in Poland demonstrating potential to



become even better. Firstly, we drafted our initial concept of the University's research development. The received funds of almost PLN 700 thousand supported our efforts to write an appropriate application. We analysed the University's scientific achievements and researchers, selected priority research areas, and analysed how we functioned as an organisation. A research university is not just the one that carries out top level research but also one that is very well organised, which directly affects the quality of research. Writing the application was immense work: 200 pages, including multiple tables and attachments. It involved numerous people: scientists and administrative staff. Our objective was to develop an organisation management plan that would focus on accelerating process optimisation in order to improve research work and its quality. The indicators were most demanding. Some were obligatory, some optional. The SWOT analysis, splendidly



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fantastically presented by Prof. Krzysztof Narkiewicz. The entire application was then phenomenally defended by the rector. As a result, we left the meeting very satisfied.

I did not believe it until the very end. Even when I was participating in the official gala in Warsaw, along with the representatives of 20 universities. It was only when the Medical University of Gdańsk was called out that I was sure we were in the group of ten research universities. But only then. The experts that reviewed us also attended the gala. I had short conversations with some of them. They congratulated us and upheld their enthusiasm for our University. That was very inspiring.

Under the project's agenda we developed a programme of increasing the University's influence on the world science in three Priority Research Areas: oncology, cardiology, and cardiovascular medicine as well as biochemistry, genetics, and molecular biology. Focusing on those areas is reasonable. Particularly because cardiovascular and oncological problems are the major causes of death in the European Union



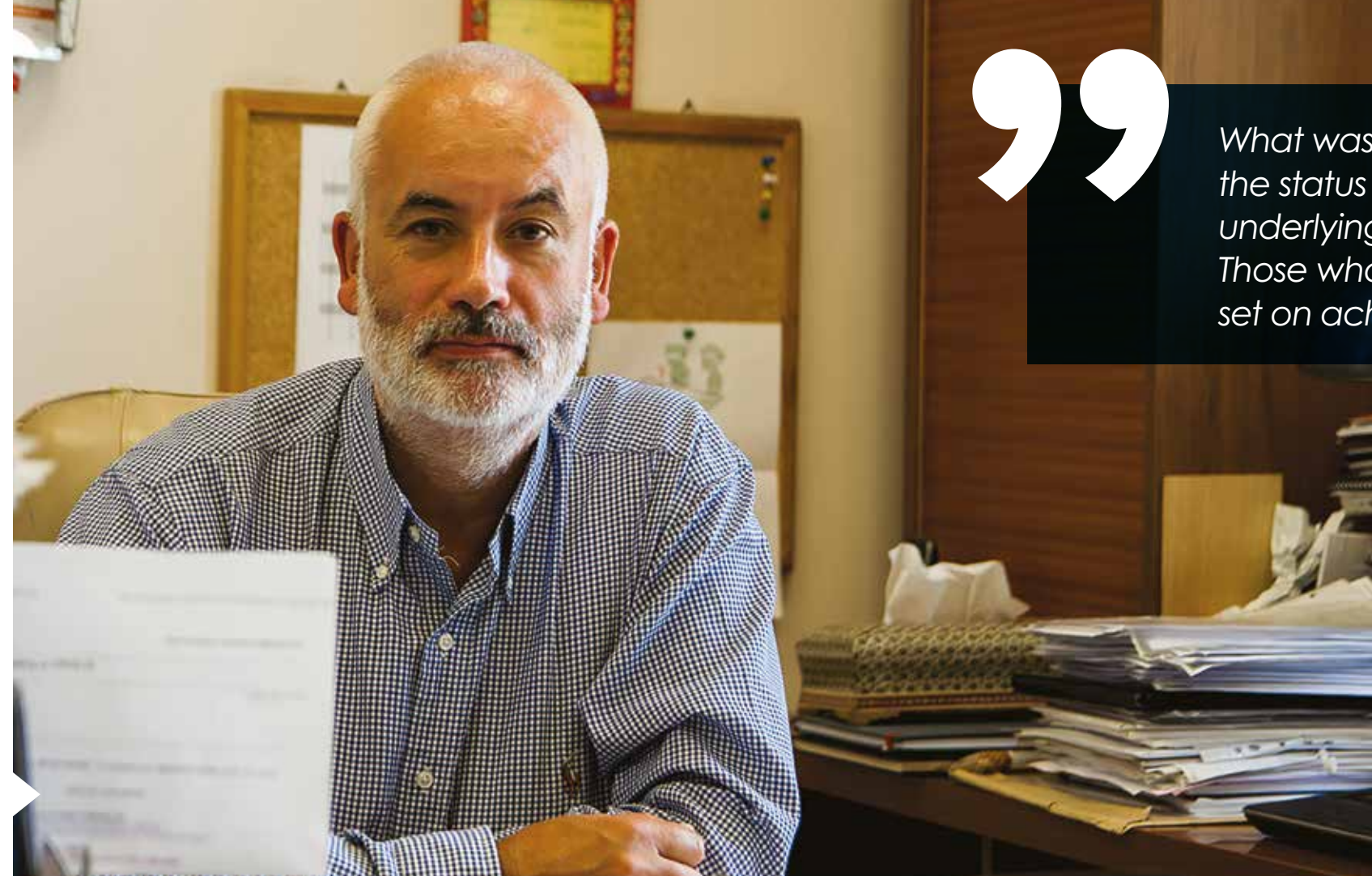
carried out by Tomasz Klejnert in cooperation with an external company, provided excellent support. The document was made in two language versions due to the involvement of foreign reviewers. Translating into English something that was extremely complex in Polish was challenging in itself.

We filed the application two days before the deadline. It made us very proud. Most importantly, we managed to prepare the application with so many people involved, and merged the world of science and administration. It will bear fruit.

In fact, nobody was really expecting that we would be classified among the top ten universities. The fact that we were ranked among the top 20 was a great success – other universities are larger, stronger. Then the results came, followed by a panic-stricken analysis of what we had planned. After a while, common sense prevailed. The application was good, transparent, supported with analyses, reviewed by objective reviewers. A time of hard work is now ahead of us. The entire University must be active to accomplish the planned results.

PROF. PIOTR CZAUDERNA
Head of the Department of Surgery
and Urology for Children and Adolescents

What was the basis for the success of being awarded the status of a research university? There are several underlying elements. Firstly, there are always people. Those who are enthusiastic, who have a vision, who are set on achievements. This is where everything starts. This is the first and most important asset but that is not enough. What is further required is support from the authorities, and luckily, we have usually received the necessary support. The University has to move forward; a standstill equals regression. Money is another aspect. It is impossible to practice science without money. Obtaining domestic and international grants, also for investments, is of great importance. I think that the construction of two new hospitals was a major modernisation impulse for the University. The opening of the Invasive Medicine Centre and the Non-Invasive



What was the basis for the success of being awarded the status of a research university? There are several underlying elements. Firstly, there are always people. Those who are enthusiastic, who have a vision, who are set on achievements. This is where everything starts.

We must maintain the current satisfactory level of instruction, which does not require revolutionary strategies as the level of education we offer is generally on a par with other universities. Good medical schools usually teach well. However, a significant jump has to be made in terms of our research activities. We want to obtain even better results, carry out more projects and write superior publications. The funds that we receive as a research university will naturally help promote this endeavour, but they will be insufficient if we ignore one significant factor. We have to provide more support to the people who want to be actively involved in research and relieve them of other burdens to the greatest extent possible. Coping with the competition from other institutions constitutes a great challenge for us.

With regard to the way we organise education, a valuable strategy would be to create conditions for our students to feel even better here. I would like us to abandon the hierarchical teacher-student approach that still dominates not only universities but also many organisations in Poland because this emphasis on a top-down flow is not just an academic problem. This situation has always had the potential to improve. However, enacting and introducing this change in mentality is by far the most difficult task we face, which is why we should put a strong emphasis on soft skills and seek to foster these capabilities among students. If we truly are to shape their lives in positive ways, we have no choice but to change our personal approach to students as well.

We further need to function more efficiently as an integrated structure. The university is gradually functioning better as a whole, but this has not been a quick process. I am confident that our organisational management's effectiveness will ensure the success of our educational and research achievements. Much depends on whether we will use this next year – even in these trying pandemic conditions – to engage in productive

Medicine Centre was of great importance. This large hospital complex is one of the most modern in Poland, if not the most modern one.

What we are still missing is to enter the prime international league. I realise the ambitions, but we still have to work on that. And perhaps we need more appreciation of our significance on the regional scale? Here in Gdańsk we have a very strong Medical University and a very strong University of Technology which are both research universities. We have two research universities, and the potential of interdisciplinary cooperation is still not utilised to the full extent. I think that is a fact worth building on, since there are places in Europe and in the world when such outstanding universities drive the development of the entire region.

PROF. JACEK BIGDA
Vice-Rector for Development and Education

We are a university, which means that combining high-level education with excellent research constitutes an on-going challenge for us. The key issue is how to implement adequately the ambitions of the more than 1,000 teachers we employ. Among them are people who are extremely good educators, but others are first-class researchers and still others succeed in combining both roles efficiently. The goal is to support them all appropriately.



self-reflection in order to understand how we can function even better. An extremely important factor will be how well we prepare ourselves to face our competition after the current crisis ends.

PROF. MIŁOSZ JAGUSZEWSKI
1st Department of Cardiology

The status of a research university is an excellent opportunity for development for us. What I have in mind here is not only the development of specific areas of medicine per se but primarily the development of cooperation between them. Cardiology, oncology, biochemistry, and genetics are very well-developed areas at the University, and they will be the starting point for our activities in the near future. Relying on those areas, we will be building an image of the MUG as a world-class university in terms of scientific research.

Being involved in scientific activity, I do realise that the funding we are to receive will open new opportunities for us. However, we have to remember that our success does not only depend on money. We must consume the funds in a skillful manner so that in the evaluation we can evidence that our University has indeed developed in terms of scientific research and that our activity is at an adequate level.

A change of the Medical University of Gdańsk's position in the international arena is a time-consuming process; however, I believe this is of minor importance. What is most important it is for the process to progress – step by step but consistently. And this is indeed noticeable. A lot has changed recently. The University is managed in a very modern way in comparison, for example, to the times when I was a student. By granting us the status of the research university the Ministry confirmed that it also noted the changes. I am also pleased that thanks to the ministerial funds, we have a chance not only to develop scientific projects, but also to implement initiatives related to the popularisation of science and informing the community about what we do; about what the work of the University authorities,

researchers, but also the administration, consists in. It is the administration's role to support scientists, and scientists are to use that support appropriately. Only in such a way we can ensure our effectiveness. Only if we are sufficient enough, we will be able to prove that our University has seized the opportunity. This poses a challenge for everyone.

Based on my discussions with people from scientific circles, I may say that our progress has also been noticeable worldwide. We gained the status of a research university, and the position of the best medical university in domestic rankings. The reception is that despite keen competition we have made a great step forward. However, we are only beginning, and our entire community is responsible for further results. Now everybody will say – check, so we have to prove that this is indeed the case, that a major step was indeed taken. This will be much more difficult than gaining the status of a research university.

KATARZYNA GRZEJSZCZAK
Vice-Chancellor for Strategy and Development

The tasks set forth in the Strategy of the Medical University of Gdańsk for 2020-2025 cover all key functioning areas of the MUG. This is a compass for the University, facilitating the choice of activities and areas in which the limited resources of the University will be focused, i.e. the people, funds, and infrastructure.

The strategy is the result of a multi-month work of many people. The authors were inspired with the activities of the best institutions and universities in Poland and abroad; they also relied on the assistance of external experts. The project was discussed with the academic community during a series of meetings with the University authorities. An online questionnaire was launched as well. People could submit their questions via a dedicated website.

The document was developed as a result of cooperation of people from various areas of the University's activity,

since an efficient functioning of an organisation is impossible without cooperation. No one is able to move mountains single-handedly.

The first year since the Strategy has been in effect has passed. The report covering all fields of the University's activity was approved by the University Senate and Council. We have just finished another year of dynamic development and we are facing the challenge of implementing the ambitious plan introduced in the Strategy, which is directly connected to the goals established the *Excellence Initiative – Research University* programme.



Priority research areas: cardiology and cardiovascular medicine; oncology; biochemistry, genetics and molecular biology

PROF. JACEK JASSEM

Head of the Department of Oncology and Radiotherapy, Head of the Phase I Clinical Trials Unit Scientific Council

A foundation of a research university may not be developed in a short time, just by making a good impression. Achievements of a university always result from many years of work. Development of teams, potential, atmosphere. I believe that the award of the honourable status to the MUG was a natural effect of several dozen years of efforts. Obviously, last months required great mobilisation, an inventory of our achievements, and development of plans for the future. This, however, cannot be done from scratch. A very solid base must exist.

I think that the status of a research university was obtained not only due to the Translational Medicine Centre

and the Phase I Clinical Trials Unit, but also due to several other earlier investments in science, for instance a modern tissue bank, the International Research Agenda or the Animal Laboratory. They were established when no concept of a research university existed. In the competition for the status we had an opportunity to show that the University had been investing in science for long that the honour was not a target in itself. In the competition, we managed to convince an international commission that we had great achievements as well as potential to carry out large-scale scientific projects and that we were an attractive partner for other entities. The status of a research university is also a major challenge. Already during the very first meeting of the University staff when we celebrated the success, I stressed that we were facing hard work. We have specific quantitative and qualitative targets to achieve. I am an optimist, as the success mobilised our community. This is a self-propelling mechanism as we will get additional funds to support us in carrying ambitious plans through. The funds will be converted into new projects, new research and it will

be easier to retain and consolidate our leading position. The prospects are good, but we are in for hard work. We have to reorganise certain things, develop mechanisms stimulating science development to support research and the resultant publications as well as effective technology transfer. Those are not necessarily large investments, but they will pay back generously.

PROF. KRZYSZTOF NARKIEWICZ

Head of the Translational Medicine Centre Scientific Council, Head of the Department of Hypertension & Diabetology

The Translational Medicine Centre has become a driving mechanism of a research university. We have thousands of new ideas and we wish to use our potential – our specific strengths. Among the major endeavours we are planning a project devoted to familial hypercholesterolemia which will be implemented by the means of the best available equipment. The other major project involving a number of various units is focuses on broadly understood heart failures. We are a national reference centre; we keep increasing the number of transplantations. We will also acquire material for genetic and metabolomic research. Currently, we run several projects in the field of nephrology, for instance related to a genetically determined polycystic kidneys disease. One of the neurological projects pertains to people with transient ischemic attacks. There are many more projects conducted here and the number keeps growing; those selected examples only show how we try to overcome barriers. The Centre is a place where representatives of many different clinics meet and cooperate using the most modern equipment. Moreover, it is a space which is important for us in the context of cooperation with the Gdańsk University of Technology. There is a lot going on in this area as well.

PROF. RYSZARD TOMASZ SMOLEŃSKI

Head of Department of the Biochemistry

Fundamental research has been carried out at the Medical University of Gdańsk since its inception. Cognitive research with its main objective being the acquisition of new knowledge on the basis of phenomena and observable facts has a special role at a medical university. The development of contemporary medicine has been traditionally based on clinical observations; however, it has been increasingly dependent on the results of fundamental research. Such research supports better understanding of pathological mechanisms, identification of new therapeutic objectives or discovery of new biomarkers. We can quote a number of examples where fundamental research has contributed to major progress in diagnostics and therapies. In case of oncology diseases, the identification of mechanisms related to the regulation of cell divisions resulted in implementing molecular therapy aimed at containing the specific element of the regulating cascade such as protein kinases. Recently, biological drugs aiming at specific molecular processes have contributed to progress in therapies of diseases with inflammatory mechanisms. The understanding of the mechanisms of adenosine creation and operation, which is related to my research, has contributed to applying the substance as a component of liquids protecting organs during transplantations.

Personalised medicine, i.e. tailoring diagnostics and therapy to each specific patient, is a major challenge of today. This is to a certain extent the result of changing an approach predominating now under which therapy and diagnosis are based on an analysis of effects in large populations. Fundamental research may contribute to the development of an individual approach to patients, providing both knowledge on potential individual variabilities as well as tools to assess such individual differences. A better understanding of mechanisms and risk factor identification may also contribute to a more effective prevention to pathologies and



Medical University of Gdańsk in the local community

ALEKSANDRA DULKIEWICZ
Mayor of the City of Gdańsk

75 years – it is hard to believe. It seems that ages have passed since the outstanding Polish scientists from the Stefan Batory University in Vilnius and other pre-war academic centres came to a ruined, post-war Gdańsk.

The growth of the Medical University of Gdańsk, marked by constantly developing its academic staff and its future generations, improving educational and clinical base, international scientific successes and a growing number of foreign students, and finally, caring for the profession's ethos, is excellently reflected by the several changes of the University's name.

I cannot find adequate words to express the gratitude that we – the Gdańsk's residents – owe to the Medical University of Gdańsk. A pandemic or a tragedy such as the attempt on the Mayor's life are not necessary to appreciate the work of the medical staff – the paramedics, surgeons, cardiologists and radiologists, anaesthesiologists, infectious disease and primary contact physicians, nurses and midwives, laboratory technicians, internal medicine specialists, physiotherapist. Most of those people, caring for our health on a daily basis are in fact the graduates of this University.



situations when processes become irreversible. Perhaps, the application of research techniques from each area of fundamental sciences will support earlier anticipation and more effective preventive medicine.

However, there is a major discrepancy between the impressive fundamental knowledge concerning physiology and pathology or the potential and methods applied in scientific research, and daily clinical practices. The possibility of fast DNA sequencing and microarray expression analyses of several dozen thousand types of mRNA particles as well as proteomic or metabolomic analyses providing for

a simultaneous analysis of several thousand substances even in attomolar concentrations are applied in fundamental research; however, their application in clinical studies or in diagnostics is still limited. A broader implementation of advanced molecular techniques may generate a number of tangible benefits both for the quality of clinical scientific research and inpatient treatment.

This is just one dimension of the MUG's presence in our city. A good medical university always increases the city's attractiveness, because, despite the imperfections of the healthcare system, it guarantees the stability of its strongest element – a well-educated physician.

Not less important is the involvement of the academia in the intellectual and cultural life of Gdańsk. The development and consolidation of the elites – however unfashionable the word may seem to some – creates a living social fabric. Finally, the University with such a long history, entails a plan for generations where masters train students and those give back what they have been given. This is how tradition is being developed, and over a long term, a heritage.

With gratitude for the MUG's involvement in the life our city, I wish you – and all of us – that the University grows stronger and we all stay healthy!

MIECZYŚLAW STRUK Marshal of the Pomeranian Voivodeship

It has been 75 years since the establishment of a medical university in Pomerania. There is hardly any person who would not know and used the services of physicians educated by our *Alma Mater*. Among many outstanding specialists who also work abroad, for instance in the USA, Germany, Canada, there are graduates from one of the oldest universities in the Pomeranian Voivodeship.

For me, this year's jubilee is a testimony of the role that universities play in student education. The Medical

University of Gdańsk has been focusing on developing their educational and clinical base for many years.

As a representative of the local authorities of the Pomeranian Voivodeship, I am happy that for several years the MUG has been ranked high among universities. According to the last ranking of the Perspektywy Education Foundation, it is the highest-rated university in Pomerania and the best medical university in Poland. I congratulate the academic community for keeping its high educational standards for so many years. I am proud that the prestige of this esteemed University is so high and that its graduates may look forward to offers of interesting jobs in Poland and abroad.

I am glad of the very good cooperation between the MUG and the Marshal's Office of the Pomeranian Voivodeship. I trust that we will continue taking joint actions to support the health condition of the inhabitants of our region.

I congratulate the authorities of the MUG on their achievements to date and I wish further excellent results and new fruitful partner contacts with foreign universities; I wish students perseverance in their studies and pride with the profession they practice.

DARIUSZ DRELICH Voivode of the Pomeranian Voivodeship

Universities play a very important social, cultural, and economic role. The Medical University of Gdańsk is an excellent example of that. It is a modern academic centre with a large scientific potential, honoured with domestic and worldwide prestigious awards and grants for research development. This was confirmed by inclusion of the University in the prestigious *Excellence Initiative – Research University* programme initiated by the Ministry of Science and Higher Education. The elite group of its beneficiaries, selected by an international team of experts, is composed of only 10 Polish universities. The MUG will be provided with a higher subsidy which will improve the quality of pursued scientific research, education level and will enhance

chances in global competition. Our region can only benefit from the programme!

It is patients who are the core participants and beneficiaries of the health system. Every year the MUG, being the largest medical institution in northern Poland, takes care of hundreds of thousands of people who need assistance, support, advice. This is not only hospitalisation, out-patient services, but also highly specialised procedures, often performed solely at units of the University. Our common objective is to create a system that will increasingly better provide for health needs: treatment, prophylaxis, and health promotion. The authorities and staff of the MUG understand that health care must follow the changes in civilisation, demographic, technological or economic processes.

Who, if not scientists, is responsible for informing us on what the world will look like some time from now, what we are to expect, what will change. Bill Readings, author of *The University in Ruins*, asks a following question in his book – *should we give in to the corporate reality in which scientists become bureaucrats or should we strive for a university where critical thinking prevails?* Understanding the challenges of today, the Medical University of Gdańsk has become a *factory* of knowledge, a place for intellectual development tailored to the needs of today's civilisation. Now, it is not just a university, but also an opinion leader, proposing initiatives, reaching out to and integrating various environments.

Young people who would like to pursue their career in health care, will be provided with adequate education here. And they are often the best of the best – school-contest prize-winners and high school students with record results of their final exams.

Due to the COVID-19 epidemic, 2020 became a great challenge to all of us. The commissioning of the first drive-thru COVID-19 tests centres in Poland here in Pomerania would not have been possible without cooperation with the Medical University of Gdańsk, its scientists and students who as volunteers take swabs from patients. This assistance is invaluable. I thank for it with all my heart.

Each jubilee provokes reflections and recapitulation. For 75 years, since the establishment of the Physician's Academy



in Gdańsk, renamed in 1950 (only in Polish) to Medical Academy and in 2009 to the Medical University of Gdańsk, the institution has been focusing on developing its educational and clinical base. As a result, patients are provided with highly specialised treatment and students are offered opportunities to study almost all medical professions.

Recalling Einstein's words, *The important thing is not to stop questioning*, I wish that you always find answers and solutions that serve the good of all of us. I am convinced that both Polish and world science will benefit a great deal from your work.



PAWEŁ ORŁOWSKI
Chairman of the first Council of the
Medical University of Gdańsk

Seventy-five years of the Medical University of Gdańsk sounds very serious, however, in the light of over nine hundred years of the University of Bologna and over six hundred fifty years of the Jagiellonian University, the age does not entitle us to feel like a university senior.

Quite on the contrary – the educational and scientific achievements of the MUG show its strength, dynamism, vitality, and ongoing development. Science measured objectively is the strength of university medicine now. With our publications, we share experiences, we become partners recognisable in Poland and abroad and we contribute to the development of modern technologies. In case of a medical university, the experience is inextricably linked to serving other people whose life and health we protect and affect its quality, also by providing professional medical staff to many health care entities. It is a common goal of all stakeholders of the healthcare system to develop a system which satisfies the health needs with increasingly better results, in terms of treatment, prophylaxis, and health promotion – to which the Medical University of Gdańsk has been making a major contribution.

Contemporary medical practice, contrary to the one years back, has undergone a change and has passed from a dogma-based area to the one based on facts resulting from scientific research and clinical observations. This is where the great role of a medical university is fulfilled. Today, this



Our common objective is to create a system that will increasingly better provide for health needs: treatment, prophylaxis, and health promotion.



a trend to assess the attractiveness of a university on the basis of their position in rankings is noticeable and rational. Nevertheless, we should bear in mind that a leading position in a ranking may generate multiple benefits for universities, provided that the professional ethics and fundamental university principles, such as universality of science and the search for truth, are simultaneously cultivated. The Medical University of Gdańsk can be proud and fully satisfied that for seventy-five years it has been complying with that obligation and remains a place which responds to actual challenges and social, cultural, and economic needs.

I wish the entire community of the Medical University of Gdańsk that, through its commitment, the University continues to be the driving force for the development of science in Pomerania and entire Poland - boldly competing in the international arena as well; and that the patients, their life, and health, will always remain in focus.

PROF. KRZYSZTOF WILDE,
PH.D., D.SC., ENG.
Rector of the Gdańsk University of Technology

is also reflected by the inclusion of the Medical University of Gdańsk to an elite group of participants of the *Excellence Initiative – Research University* programme initiated by the Ministry of Science and Higher Education.

Due to the determination of the authorities and academic staff of the Medical University of Gdańsk, a leading centre has been established, in terms of both scientific and clinical activity. The successful accomplishment of ambitious plans has been largely based on determination, vision, and a new approach to science. With EU, state and internal funds, investments have been carried on in a new scientific research, educational and clinical infrastructure. Visions are realised in accordance with which an academic doctor, supported by university administration, actively seeks new solutions, conducts research, publishes and is open to challenges resulting from cooperation with business.

One would like to say that the real value of universities cannot be expressed in simple specifications; however,

I pass the campus of the Medical University of Gdańsk almost every day on my way to work and observe how rapidly our neighbouring university keeps developing. Relying on active scientific and research cooperation between our universities, I also notice that this a multi-faceted development and the MUG is now a symbol of the high quality of education and science in Pomerania.

I am proud that we can cooperate on a daily basis with a top university which clearly stands out among the other medical universities in Poland. Both the study programme and the level of knowledge verification by the academic teachers are among the best and most demanding. Students could thus sneeringly say they have it quite hard, even harder than the medical students from other cities. However, it is worth remembering that the MUG has been training the best staff among all medical universities in Poland and its



graduates later fare very well in the labour market and when they devote to scientific and research work.

As the rector of Gdańsk University of Technology, constantly climbing the rankings of technical universities, I was very happy that less than a year ago our universities were granted the status of research universities. With admiration, I also noted that the Medical University of Gdańsk was granted as much as PLN 83 million for scientific projects by the Medical Research Agency. That was the best result received ex aequo with the Medical University of Warsaw which is clear evidence that the MUG has an increasing influence on the development of a strong academic centre in Gdańsk.

We are doing our best to develop the centre jointly with the University of Gdańsk, by co-creating the Daniel Fahrenheit Association of Universities. With the initiative, we can

synchronise our actions and further consolidate the academic image of Gdańsk. This also provides us with an impulse for further development and will support more efficient education of staff for companies and institutions in the social and economic environment of Pomerania.

I am convinced that our cooperation will be even closer and multi-faceted in the near future. We had a foretaste of the above at the beginning of the year when we jointly attended a scientific seminar on Sobieszewo Island. As a result of many hours of discussions, which interestingly lasted till the early morning hours, a number of research initiatives and projects were jointly undertaken by our scientists. I can assure that on the occasion of the next jubilee of the Medical University, we will be able to say much more about the effects of the cooperation.

Medical University of Gdańsk in the scientific community

PROF. PIOTR CZAUDERNA
Head of the Department of Surgery
and Urology for Children and Adolescents

I started being interested in science as a student in the 1980s. I participated in scientific associations; I was lucky to have worked under watchful eye of good masters. At the Department of Histology, supervised by Prof. Andrzej Myśliwski and Prof. Jolanta Myśliwska, we were studying inter alia lymphocytes in the elderly population. We were studying how the ageing process affected lymphocytes and their sizes. These lymphocytes were viewed under old microscopes, then measured and counted on manual calculators. Now, all of that could be done automatically. I remember going to the library back then, searching for information on articles published in magazines in big paper volumes called Currents Contents, and then wrote requests to the authors for copies of their works on special forms. There were numerous cabinets with drawers containing catalogues with paper cards. Everybody was setting up a private catalogue at home with paper cards covering the required literature. This is how scientific literature was acquired then. When I went to the USA for the first time in 1991 and was shown the first web

search system of databases, I was shocked. Since that time, the world of science has changed a lot. Now we have practically unlimited access to information. The easy exchange of knowledge is of great importance. Now, when an extensive research on COVID-19 is being conducted, it is even more visible; although, sometimes haste generates major scientific failures. Scientists, magazines, and all other communities keep sharing every piece of data that concerns the epidemic on an ongoing basis.

I graduated in the 1980s, and when I look at my professional life, I think that the University has used its opportunities well. The MUG has developed enormously in terms of the position and the role it has started to play. We are quite a small university, theoretically with much less potential than large universities, and we have managed to keep up with them or even be a little ahead of some. By being granted the status of a research university, our academic centre has also reached the position of the best. This is evidence of how much the University has changed.



PROF. TOMASZ ZDROJEWSKI
Head of the Department of Preventive
Medicine and Education

I have been associated with the University for as many as 35 years now, and I would identify three phases in my work. The first period is the 1980s. Warsaw was completely dominating; we, as the Medical University of Gdańsk, were only a modest client of the Ministry of Health and medical institutions in Warsaw: sometimes they allowed us to do something, sometimes not. And they provided us with funds or... not. When, together with Prof. Barbara Krupa-Wojciechowska, we travelled to Bonn for a Congress to present our own work, we had no other funds apart from those to cover the travel costs. I slept in a tent at a camping site, while our colleagues from Warsaw who had no presentation to make slept in a good hotel. Those were the 1980s. And then came the 1990s. We rebelled a little and were trying to change the state of affairs – to cooperate, to find extra opportunities and be more involved in decision-making. We wanted to be not just a subcontractor for Warsaw but a partner. Those attempts became increasingly successful; for instance, within the National Heart Protection Programme, when we successfully conducted medical examinations in the Polish Parliament, along with the Cardiology Institute from Warsaw. Finally, the third phase covers the last two decades, the ongoing period of our full autonomy in science. It was truly extraordinary that in 2002, while being from Gdańsk, I became the secretary of the National Polkard Programme. Colleagues from the MUG were elected to the management and as CEOs of various European associations. Together with Prof. Bogdan Wyrzykowski, we have conducted major nationwide projects and analyses, published inter alia in the British Medical Journal. We have gained our own space to practise science. The NOMED project, a great study of atrial fibrillation and cerebral strokes, is a spectacular example. It was carried out in Poland, mainly in Zabrze and Gdańsk. Another one is the PolSenior Programme that we run with the best geriatric centres in Poland.

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PROF. JERZY BŁAŻEJOWSKI
President of the Gdańsk Scientific Society

The 75th anniversary of the foundation of the Medical University of Gdańsk is a special occasion to recognise the merits of an outstanding Pomeranian university, along with the centuries-old tradition of achievements of Gdańsk medicine. Established on the basis of the decree of 8th October 1945, the Physician's Academy in Gdańsk, renamed the Medical Academy in Gdańsk in 1950 and the Medical University of Gdańsk on 19th May 2009, the university is now both an internationally recognised academic institution and a leading national scientific and research centre, providing education in the fields of medical and health sciences. The Medical Academy commenced its activity on a grand scale owing to the transfer of the staff of the Faculty of Medicine of the Stefan Batory University in Vilnius to Gdańsk.



Today, successive generations of outstanding scientists who settled in a post-World War II Gdańsk render the Gdańsk medical school famous with their achievements. Many of them were and are deeply involved in the activities of the Gdańsk Scientific Society (GSS). And so, Prof. Tadeusz Bilikiewicz was the first president (1956-1958) of the GSS appointed on 27th October, 1956. The function of the president of the Society was also held by Stanisław Hiller (1959-1962) and Józef Sawlewicz (1965-1970) i Marek Latoszek (1995-1998). The position of the Society's Vice-President was held by: Tadeusz Bilikiewicz (Society of the Friends of Science and Art in Gdańsk, 1950-1956), Bożydar Szabuniewicz (1959-1962), Fryderyk Pautsch (1963-1964), Mieczysław Gamski (1971-1973), Mariusz Żydowo (1979-1981), Jerzy Dybicki (1998-2001) and Brunon Imieliński (2010-2013); since 2004, Marek Wesołowski is the vice-president. The post of the general secretary was held by: Bernard Janik (1956-1960), Józef Sawlewicz (1963-1964), Fryderyk Pautsch (1961-1962), Marian Antosz (1965-1966) and Roman Kaliszan (1998-2001). Second Department of Biological and Medical Sciences has been headed or still is by: Walerian Bogusławski (1975-1977), Witold Tymiński (1981-1983), Zenon Ganowiak (1983-1987), Krystyna Kozłowska (1987-1993), Janusz Limon (1993-1995), Jerzy Dybicki (1995-1998), Marek Grzybiak (1998-2007), Andrzej Kryszewski (2007-2010), Zofia Szczerkowska (2010-2013), Mirosława Cichorek (2013-2019) and Lidia Wolska (from 2019).

Researchers associated with the Medical University of Gdańsk have made a significant contribution to the resources of general human knowledge, and with great commitment support the society in maintaining good health and substantially contribute to the increase in the prestige of Pomeranian science.

On behalf of the community of the Gdańsk Scientific Society, I congratulate the Medical University of Gdańsk on its great achievements and a worthy place in the group of scientific and educational institutions. Thank you for your endless dedication to science and for fulfilling an important social mission. I wish you many new successes and increasing recognition at home and abroad. I wish you a joyful celebration of this illustrious jubilee in the feeling of satisfaction with your everlasting accomplishments.

PROF. ADAM WITKOWSKI
President
of the Polish Cardiac Society

The 75th anniversary of the Medical University of Gdańsk is an excellent opportunity to congratulate all my Colleagues who are involved in the work of this prominent academic centre, shaping its unquestionable reputation in the country and abroad for many years.



The MUG is the oldest and the largest medical university in northern Poland. In 2019, it received the status of a research university in the *Excellence Initiative – Research University* competition organised by the Ministry of Science and Higher Education.

As a cardiologist I find it a particularly good opportunity to refer to the most important achievements in this field of medicine, of which the MUG was and is an active participant. It is here that I should acknowledge the wonderful figures who created Gdańsk cardiology, such as Prof. Grażyna Świątecka, who was recently by the President of the Republic of Poland with the Order of the White Eagle and many other outstanding doctors and scientists, some of whom I am honoured to know personally, including young people who will ensure a great future for the University. It is thanks to them that the MUG cardiology is constantly developing and involved in all possible fields: prevention and epidemiology, public health, interventional cardiology, electrophysiology, cardiac surgery, arterial hypertension (cooperation between the MUG and the National Institute of Cardiology in Warsaw on the surgical treatment of hypertension being one of many notable examples), familial hyperlipidaemia and many others. I would also like to congratulate the Rector of the MUG, who has recently been elected chairman of the Conference of the Rectors of Academic Medical Universities, and on behalf of the Polish Cardiac Society, I wish you all long years of fruitful work and many achievements.

PROF. ANDRZEJ B. LEGOCKI
President
of the Polish Biochemical Society

At the Medical University of Gdańsk, established 75 years ago, fundamental natural research has been intensely developed from the very start. Over the years, a number of academic specialisations were intimidated



with research areas falling into the field of modern biomedicine. Nowadays, in the age of extraordinary interest in individualised medicine, those advanced specialisations have become of particular importance.

Prof. Włodzimierz Mozołowski, a legend of public and military activity, made enormous contributions to the development of natural research; he is deemed the founder of the Gdańsk school of biochemistry. Several rectors of the Medical University of Gdańsk made great contributions to

the consolidation and development of biological research at the University. They were biochemists by education: Mariusz Żydowo, Stefan Angielski, Wiesław Makarewicz and a pharmacist, Roman Kaliszan. The first three rectors were the students of Włodzimierz Mozołowski.

The event that played a great role in integrating the entire natural potential of the Gdańsk community was the establishment of the Intercollegiate Faculty of Biotechnology of UG&MUG. In the third decade of its existence, the Faculty managed to integrate both universities around broadly understood biotechnological issues, and now it can boast outstanding scientific and educational achievements.

The social integrating initiatives in Gdańsk are complemented by the Gdańsk Science and Technology Park. As initially planned, it functions as a technological incubator for young researchers and also as a centre propagating biomedical and technical novelties.

When looking at the position of Gdańsk academic centre compared to other university centres, it is clear that it is among the most dynamic ones. It is characterised by freshness and exceptional openness to bold research and organisational initiatives. That is also due to the social climate of the entire region, which is conducive to the implementation of future visions serving not only the present, but above all future generations.

On the occasion of the beautiful, 75th anniversary of the Medical University of Gdańsk, on behalf of the Polish Biochemical Society and the entire domestic biochemical community, I wish to express my most sincere congratulations to His Magnificence Rector Prof. Marcin Gruchała. We wish further excellent development of the University, personal prosperity to its graduates and all those who feel associated with it.

PROF. JACEK JASSEM Head of the Department of Oncology and Radiotherapy

I am a loyal patriot with deep local roots, and my *Alma Mater* has always been important to me. I have been offered jobs in renowned institutions abroad, but I have always come back home. I knew this was the place where I could realise and implement my individual ideas. I established scientific contacts with the outside world long before the political transformation of the 1990s, although networking was much more difficult than it is currently.

A good atmosphere has always prevailed in this institution. I remember that, shortly after graduation, I spent evenings in the immunology laboratory, and, with flushed cheeks, I waited for my experiments' results and those of later work related to my doctoral thesis. That period was a fantastic adventure, but, looking back now, it may have been more like trying to manufacture a car in a smithy. The conditions were completely different from contemporary facilities. Nonetheless, my first international papers were published as early as the mid-1970s. These achievements are living proof that valuable science could be practiced even then.

Subsequently, a plethora of opportunities opened up for academics not only in terms of international projects but also personal projects as the university has always supported scientific research. At the time, no rankings of individual scientists, institutions or universities existed, yet people had real zeal and enthusiasm. When the faculty's efforts could be verified objectively, they had already had an impressive impact.

University publications

PROF. DARIUSZ KOZŁOWSKI Editor-in-Chief of the *European Journal of Translational and Clinical Medicine*

The development of medicine has resulted in an increased number of experimental and clinical works. Many members of the MUG have become forerunners of those changes since their observations were published in renowned influential western magazines.

Established in 1970 *Annales Academiae Medicae Gedanensis* has published a multitude original, general, and caustic papers in its 47 volumes. Over the years, despite the increasing scoring of the Ministry of Science and Higher Education and the Index Copernicus, the number of quotations from the articles has been decreasing. It was inter alia due to a major outflow of good papers written at our University to other magazines – mainly Polish, yet with high impact factor. The above changes have led to the question: *Quo vadis Annales?*

In 2017, a fundamental revitalisation of the magazine commenced, i.e. new departments were set up, an electronic system for the articles' deposition was launched. An open model of disseminating publications (Open Access) was implemented and the rules for creating derivative works under a Creative Commons licence liable to the same terms and conditions (CC BY-SA4.0) were defined. A valuable point was raised by Prof. Stefan Raszeja, the originator of the idea to publish the *Annales*. The Professor has always

dreamt of having *Annales Academiae Medicae Gedanensis* incorporated to the so-called Philadelphia list and to score Impact Factor points.

The *European Journal of Translational and Clinical Medicine*, published by our University since 2018 as a proud continuation of the *Annales*, paves the way for scientists to internationalise the results of their research while breaking down financial barriers in the area of publishing and accessing knowledge.

PROF. JERZY ROGULSKI *Gazeta AMG* Editor-in-Chief in 1991-1993

Gazeta AMG was created spontaneously over tea with rector Prof. Stefan Angielski who said upon entering, *we should be publishing a university magazine, an information bulletin in order to reach out to people*. Right then and there we decided that it should be regular publication, at best a month periodical, and the title should refer to daily matters important for the entire University community. I proposed that the title of "Gazeta" should be a phonetic cluster of the phrase *GazetaAMG*, with small case a out. Right then I sketched a design of the vignette. I asked Marek, my son, an artist painter, to design the vignette of *Gazeta*. I liked what he came up with – it was simple and expressive.



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Gazeta seemed well received. The first step was taken, yet, it did not become easier afterwards. Now, I cannot remember exactly how, but we did manage to continue publishing on regular basis.

That was in December 1990. Two days after our conversation I had a visit from Józefa de Laval, director of the Main AMG Library who seemed very concerned. The Rector had asked her to co-edit the magazine. What is more, the Rector wanted the first issue to be ready for the New Year's Day meeting. *Can you imagine that?*, she asked.

On instruction of the Rector, the administrative authorities of the University and the Hospital provided data on the then current condition of our institution. We had to select something out of that, put it together, and add something here and there. The hectic work and nervous atmosphere of those days were very well reflected in the words of Mrs. Józefa: *Christmas in a few days, the carp is in the bathtub and we are miles behind with Gazeta*. Finally, we had the issue ready! Full 8 pages! Rough paper and print on a stencil duplicator reminded us of the underground pamphlets of the state of war; we were operating with reference to contemporary events, with no legal base. Upon request of the Rector.

Gazeta seemed well received. The first step was taken, yet, it did not become easier afterwards. Now, I cannot remember exactly how, but we did manage to continue publishing on regular basis. However, at the end of each month the situation was becoming nervous. Each time, after I had approved the content and layout of each new issue and left the Department of Clinical Biochemistry late in afternoon with the sense of satisfaction, Mrs. Józefa and Urszula Wojdak stayed in the office. The copied texts had to be transferred to an electronic medium and forwarded for duplication/printing. The sheets had to be folded to resemble *Gazeta*.

And just when I thought I would be editing *Gazeta* successfully for a long time, the summer suddenly ended – just as in the famous Polish *Elderly Gentlemen's Cabaret* – and a new Rector was elected. I filed my resignation. *Gazeta* gained new successive editors-in-chief who developed and shaped it – each in a slightly different manner. *Gazeta* did not stick to one single pattern. Years later, language purists started to read the title literally as *GazetaAMG*. The title vignette was changed, and a number of ornaments were added. Finally, *Gazeta* was renamed. It keeps developing and changing. I only wish that it does not change into a paper social medium.

MUG'S PUBLICATIONS

Annales Academiae Medicae Gedanensis

the magazine was established in 1970 upon the initiative of the then Vice-Rector for Science, Prof. Stefan Raszeja. The journal was issued from 1971 till 2017. It published original works, information on university life and posthumous memories. The last issue was printed in 2017.

European Journal of Translational and Clinical Medicine

published since 2017 as a continuation of *Annales Academiae Medicae Gedanensis*. The journal is a peer-reviewed semi-annual journal published in English in the Open Access model, acknowledged and supported by an international team of scientists.

Gazeta GUMed

has been published continuously since 1991. It is among the oldest academic magazines in Poland.

Bulletin of the MUG's Museum

addressed to readers interested in the history of the University and the history of medicine and science.

Librorum Amator

an occasional publication of the Main Library of the Medical University of Gdańsk, published since 2008.

Remedium

MUG student magazine. It dates back to 2006. Now it has been incorporated into the structures of *Gazeta GUMed*.

MAŁGORZATA OMILIAN-MUCHARSKA Gazeta GUMed Editor-in-Chief

The awareness of how important it is to inform about all meaningful academia-related matters, has been present at our University from the very first weeks of its existence. In 1945-1947 the *Biuletyn Akademii Lekarskiej* was published – an equivalent of today's newsletter. At the beginning of the 1950s it was followed by *Głos Akademii Medycznej* (a magazine of the university management of the Union of Polish Youth and Polish Students' Association). In 1955 and 1956 *Medyk Gdański* was published – firstly as a student's magazine and then, as a university magazine. *Gazeta GUMed* constitutes yet another and the longest publishing activity to date. Today, the monthly periodical is among the oldest Polish continuously published university magazines. It now celebrates its 30th anniversary.

Over the years, the *Gazeta* has undergone many transformations with respect to its size, circulation, and distribution method, through changes to its graphic form, up to the modification of the title. The articles about the university life and the academia were gradually expanded with new thematic cycles, polemical, opinion-forming, and health promoting articles. In view of the international nature of the University, recently articles have also been published in English.

The editorial teams kept on changing – after Prof. Jerzy Rogulski the position of the editor-in-chief was taken by, respectively, the Professors: Marek Latoszek, Brunon L. Imieliński, Wiesław Makarewicz, Bolesław Rutkowski. It is worth noting that the latter two continue to support *Gazeta GUMed* with their work, experience, and authority, heading the Programme Council that guarantees independence and reliability of the published content. The Council also includes: Prof. Barbara Kocharńska, Prof. Antonii Nasal and Wioletta Mędrzycka-Dąbrowska, Ph.D., D.Sc.

Both the founders of *Gazeta* (the university authorities) and the editors-in-chief have been formulating and expanding the objectives of our university magazine for years. Their postulates are reflected in our today's programme statement:

Gazeta GUMed (...) presents official views of the authorities, material resources as well as the educational and intellectual potential of the Medical University of Gdańsk as well as cooperation with the University Clinical Centre, the Institute of Maritime and Tropical Medicine and other institutions under common projects. It records current events in an informative and chronicle-based manner and recalls facts and historical figures important for the development of the University, referring to traditions, memories, and museum resources; it takes up current social and cultural topics. The magazine acts as a forum for presentation and discussion (...) it is also a tool creating the image of the University, promoting University projects, attitudes, and personas. It also aims at integrating the entire community (...) by developing a common identity and identification with the University.

In its printed version, 630 copies of *Gazeta GUMed* reach all the Clinics and Departments of our University and the University Clinical Centre as well as to the decision-makers in the region and the country. The number of on-line readers at least doubles the general reading public. The number of views of earlier issues indicate that a large group of readers treat the electronic version as if it were an archive; another group is constituted by the readers of an easily accessible PDF version of the current issues. It makes one wonder about the publishing form and future of the magazine. Thus, we plan to refine *Gazeta GUMed's* online version; however, our main goal is to maintain its existing printed version, attract new readers, convincing them that the university magazine is an attribute of the academic tradition and culture.

By expressing his concern that *Gazeta* may become a paper social medium, Prof. Jerzy Rogulski provokes a reflection on how to choose the content so it can compete against image in the unfair struggle. Is the contemporary reader ready to focus his attention on a detailed text longer than it takes to read a short post or a tweet? The direction of development of our monthly periodical depends primarily on us, i.e. readers and authors of articles alike since it is members of the academia who create the magazine by sharing major information on the University and the MUG's hospitals, their knowledge, experience and professional successes, passions, talents, memories.



The reputation and position of a given world university is primarily determined by scientific research, however, the publishing potential and reputation of journals published by universities is also of great importance.

From the left: Izabela Szeibelis-Deskiewicz, Prof. Dariusz Kozłowski, Janusz Springer, M.D., Tomasz Szmuda, M.D., Ph.D., Małgorzata Omilian-Mucharska

A socially responsible university. Our work for the community

In 2019, the Medical University in Gdańsk (MUG) signed a University Social Responsibility Declaration in which it committed itself to popularising academic values and science among the public. The social responsibility of the University is one of the priorities of the MUG Strategy for 2019-2025 adopted in 2019. Therefore, the University staff and students organise dozens of events to promote health each year. Those include such preventive actions like: *Picnic for Health*, *Streetcar Named Desire*, *Health under Control* or *Consult with a Pharmacist*. We have been popularising scientific knowledge among young people by developing such projects as *Science for Health* – an event during which we make presentations of our scientific activity, or the *Youth Meetings with Medicine* – regular lectures aimed at showing high-school students, candidates for physicians, what medicine real is, free of media stereotypes. We also operate a University of the Third Age. Its unique character rests upon the vast spectrum of topics it covers, i.e. concerning medicine and health, which are topics that have been most popular among students of the Universities of the Third Age all over Poland for years.

PROF. TOMASZ ZDROJEWSKI Head of the Department of Preventive Medicine and Education, originator and organiser of the *Youth Meetings with Medicine*

The Youth Meetings with Medicine for schools in our region were established as a result of objective needs and partially due to subjective events. In fact, everything started from cooperation between the cities of Pomerania and the Marshal's Office back at the end of the 1990s. We carried out *Health for Pomeranians* and the *Sopkard* programme, the latter of which is still continued. The then Rector Prof. Wiesław Makarewicz stressed the need for broader education of society and cooperation with local authorities on the issue of health promotion and organisation of health services. We developed a number of educational projects and programmes and videos for TV and radio. Afterwards, we organised several conferences with the Regional Medical Chamber for medical professionals and the society. We noticed that they were sometimes attended by young people. Quite spontaneously we arranged meetings

for high-school students. At the first two *Youth Meetings with Medicine*, eight years ago, the largest lecture hall was overcrowded, there were no seats available, even on the stairs. Since the very beginning, the meetings of the MUG authorities with high-school students have gained their own momentum and due to fire regulations we were forced to introduce registration and limits. Now we have organised over 60 such meetings. We have organised similar meetings in Elbląg, and Słupsk is also on the agenda. It was our keen intention to present outstanding Pomeranian physicians and pharmacists from the MUG as living people who – apart from medicine – have numerous talents and interests. For instance, Prof. Jolanta Wierzba is a poetess, she has published a volume of her poems; she does great things not just in the field of science but also in the clinical and educational areas for children with rare diseases. I asked Prof. Jacek Jassem to say why he had chosen medicine and what other things he did apart from medicine; he answered: sport, rafting, trips, and other passions. Marek Bukowski, M.D., Ph.D. from the MUG Museum does a great job at our meetings as well by wonderfully telling young people what medicine looked like in the past. Apart from the lectures by our own experts, we also hosted spectacular foreign guests. Prof. Allan Sniderman from Montreal, a world renowned scientist, delivered a lecture well-remembered by young people until today. The first half was about lipids, the other about life and if it is worth studying medicine. And that there is nothing wrong with that if they decide to choose other exciting professions.

Each expert realises that it is not easy to speak about what they do in an interesting manner. Speakers at the *Youth Meetings with Medicine* are well aware that they have to tailor their language and expression to young people. And add something about their private lives or interests. Even the most experienced experts are very concentrated and take every effort right from the very beginning. After the lecture, however, they relax, smile, get into direct conversations, and the atmosphere is friendly. Usually several students come up with questions and seize the opportunity of a direct conversation on topics of their interest. I also think that this is an interesting formula for our speakers that provides professional reflection and satisfaction. I have invited no less than 50 authorities of the MUG and Pomerania to attend in over 60 *Youth*

Meetings with Medicine and I cannot remember that I have ever been refused.

With time, the *Youth Meetings with Medicine* have become a cult project with health prevention and education in the background. We try to encourage young people to become ambassadors of good health, good education and health promotion at school and in their families.

ELEONORA SZTAJNKE a student of the University of the Third Age at the Medical University of Gdańsk

I have been using IT technologies pretty well for a dozen years now. I surf the web searching for interesting information. I use a smartphone with mobile Internet. A website I visit once in a while is the site of the Medical University of Gdańsk because the information published there is not only addressed to students and staff of the University but also to all other people. One day an announcement about a University of the Third Age was issued. I called to enrol on its second edition. I follow the principle: there is no better medicine for an old age than a university of the third age. Earlier, I had been a student of the University of the Third Age in Słupsk for 12 years

On 8th November 2019, we were invited to a ceremonial inauguration of the 2019/2020 academic year for the students of the University of the Third Age. I was extremely happy that I was accepted as a resident of the Pomeranian Voivodeship and I could attend the ceremony. Each Project participant received a personal invitation to the Olgierd Narkiewicz Auditorium Primum.

I am a student again and I am very happy to attend interesting lectures, related primarily to taking care of your health in senior years, detailing also the most frequent diseases, including prevention with psychology and sport. Those subjects are covered at workshops in small groups. I take notes so that I can review them afterwards. The classes are



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carried out by scientific staff in an attractive manner. Everything is carefully planned and carried out.

It is great that now we are offered such opportunities. There were no Universities of the Third Age in the past; there were seniors' clubs. My mum was a member of such club. She was looking forward to every meeting. So, I decided

then that when I retire, I would also continue being active. We need to meet people and talk to them. We teach various things to each other. The psyche greatly benefits from such interpersonal contacts. Universities of the Third Age are indeed a blessing for senior citizens.

NOT ONLY STUDIES AND RESEARCH

Student organisations

NICOLE GERYK
President of the Gdańsk Branch
of the International Federation of Medical
Students Associations IFMSA-Poland

The beginning of my activity in IFMSA-Poland is associated with the Fourth Summer Camp which I attended accidentally. That, however, was a start of a great adventure that lasts until this very day. At the camp, I had an opportunity to establish my first relationships with medical students of the Medical University of Gdańsk and other medical universities in Poland.

For the first three years of my studies, my activity in the Association was primarily focused on public health, with specific stress on mental health. At that time, I was the Local Coordinator of the *Psychiatry is also for people project*, and my task was to educate high-school students

on mental disorders. With time, I also got involved in national activities where my tasks covered the coordination of activities of other people; afterwards, I was also involved in preparing proposals of our projects in English that were later presented at our international General Assemblies.

In the meantime, I took up managing the Gdańsk branch of IFMSA as its president, and I also prepared the autumn edition of the most important event at IFMSA-Poland – the 43rd Assembly of Delegates, during which 300 medical students from all over Poland held meetings in Gdańsk-Sobieszewo.

When I think about what my activity in the Association has given me, the people whom I had the pleasure of meeting over the years are definitely coming to the fore. Not only was I able to make friends with students hundreds of kilometres away from me, I also had the opportunity to get to know other points of view, discuss and learn together. I could also learn about other viewpoints, had a chance of discussions and joint studies. Involved in preventive actions, I had an opportunity to acquire courage, and to develop my communication skills with potential patients. With my travelling opportunities, I substantially expanded my horizons, especially in the context of other cultures, different from ours to varying degrees. That was due to students who decided to have clinical training or who were on scientific exchanges in Gdańsk, and also due to trips I made: clinical training in Iceland and China.

There are over a dozen student organizations operating at the Medical University of Gdańsk. Every student will find something that meets his/her interests.

The University Student Government represents the opinions and interests of students, both inside and outside the University. It is involved in taking the most important decisions. It is consulted by the authorities in all matters that are important for students.

The Student Scientific Society is an organisation grouping and coordinating activities of students participating in the University Student Scientific Circles.

The MUG Academic Sports Association coordinates and organises sport life in the form of sports sections and sports optional activities.

The Students Association of Laboratory Scientists (formerly the MUG Forum of Medical Analysts) is a students' organisation for those interested in laboratory diagnostics.

The International Federation of Medical Students Associations is the largest and oldest organisation grouping medical students and young physicians. The branch in Gdańsk has been operating at the University since the establishment of IFMSA – Poland, that is since 1956.

The Polish Pharmaceutical Students' Association Branch in Gdańsk was set up in 2016. Earlier, pharmaceutical students operated under the aegis of the Polish Pharmaceutical Society as a Student Section Young Pharmacy.

The Gdańsk Association of Dental Students has been operating since 2016 in the Medical University of Gdańsk.

Erasmus Students of the Medical University of Gdańsk takes care of students visiting the University under the Erasmus+ program.

A branch of Epsilon Theta was set up in the Medical University of Gdańsk in 2010. This is one of very few branches of the Phi Delta Epsilon International Medical Fraternity outside the United States. The objective of the Fraternity is to integrate Polish- and English-language students of medicine and to support students and local communities.

SZYMON ZDANOWSKI Chair of the Board of the Student Scientific Society in 2018-2020

It all started in November 2017, with the IKONA congress in Warsaw. Together with Rafał Suchodolski, my university colleague, I went there to learn about changes to the act on higher education, meet students interested in organisational and scientific activity. Representatives of the Medical University in Łódź and the Pomeranian Medical University we met there were activists of student scientific societies. We had never heard of anything like that. Afterwards, we found that indeed there had been the Student Scientific Society at our University, but it had interrupted its activity two years earlier.

When we returned, we also engaged our colleague Damian Palus to reactivate the society. From meeting to meeting and an action plan was devised. For its realisation, we got the support of Prof. Miłosz Jaguszewski of the 1st Department of Cardiology, who told us how the Student Scientific Society had functioned when he was a student and put us in touch with the previous supervisor of the Society, Prof. Michał Woźniak. In the reactivation process, we were very much supported by the Student's Affairs Office and Vice-Rector Tomasz Smiatacz. We could also count on subject-matter support by colleagues from the University in Łódź, experienced in organisational matters. In June 2018, we completed all the formalities, a first meeting was held where we presented our vision and elected the Management. During the summer vacations, an idea came up on 'scientific sessions'. Those were to be local events, a space to practise presentations before going to conferences, to test oneself in front of fellow students and a jury composed of scientific staff of the University.

We held our first session at the end of September 2018, followed by sessions in December 2018 and in January 2020. We noted that we filled in a gap.

In December 2018 we started efforts to resume International Student Scientific Conference (ISSC) conferences which used to be held for over 20 years at our University. The idea got a positive response from the authorities of the University

that supported us in implementation. In the course of our preparatory work, we were joined by Alicja Weiszewska, who became the Chair of the Board of the Society in January 2020. The ISSC conference was held on 12th-13th April 2019. None of us had experience on organising events on such a scale, so it was a major challenge for us, which as it seems we stood up to. In the autumn of 2019, we started to plan the next edition.

In the academic year of 2019/2020, we decided to give shape to Damian Palus's idea and organise a series of expert lectures. The first lecture was delivered by Vice-Rector Smiatacz at the beginning of 2020. A lot of people attended the event. That was a signal for us that what we were doing made sense. Also, the second lecture on pain treatment with Irmina Śmietarska, M.D., Ph.D. from the Department of Anaesthesiology & Intensive Care was successful.

Students of the MUG present their papers and posters at conferences in Poland and abroad more and more frequently. This is also reflected in applications for Rector's scholarships. I am happy with that since it was our aim to reward scientific activity. From the very beginning, inspired with grants of Medical University in Łódź, we have been seeking a support program for students involved in research. I hope that in the near future students will have more opportunities in carrying out their own research projects.

PROF. MIŁOSZ JAGUSZEWSKI 1st Department of Cardiology

The Student Scientific Society has played a very important role in my student life. It started with my involvement in work at the International Students' Scientific Conference (ISSC). Our conferences have always been at a high level. Hence, the ISSC was a true celebration at the University. We professionally cooperated with the largest foreign student scientific societies in this regard, for instance, from Berlin, and we were supported with educational grants by pharmaceutical companies. After some

time, I became the vice president of the management of the Society.

Society has contributed to the integration of our community. Many of my fellow students looked for contacts at other universities. We started to attend conferences abroad and seized the opportunities to establish connections and friendships, many of which are still maintained. That contributed to integration much more than joint workshops, classes, or event parties. We kept supporting each other in our scientific development. My student group was very closely involved in the Society's activity; practically all of them have become doctors of medical sciences. However, we wanted to do something more apart from just studies. We felt a scientific spirit. Throughout the time we actively searched for contacts, we had a number of great initiatives, meetings, foreign guests. We learned how to cooperate with other universities. Many of us were afterwards trained abroad, some have left for good; those were different times, and nothing was obvious.

However, the most important thing is what we leave after us... Several years after graduation, I went abroad. I know that after I left, the Student Society ceased to exist for some time. Luckily, two years ago, I met Szymon Zdanowski and Rafał Suchodolski, who were keen on reactivating the ISSC conference and the Society. I trust everything heads in the right direction.

What will happen now? In my opinion, a research university has to have a Student Scientific Society. Students should support us in scientific activities, and we should take care of them and provide them with room for achievement, as they can do great things.

ALICJA WEISZEWSKA Chair of the Board of the Student Scientific Society in the term of 2019/2020

My adventure with the Student Scientific Society started in June 2018 when it was reactivated. I became an active participant in January 2019, when I took over the logistics



Szymon Zdanowski (third from the right), Nicole Geryk (fourth from the right), Paulina Okuńska (fifth from the right), Alicja Weiszewska (eighth from the right)

section at the ISSC conference, the first after the Society was reactivated. We managed to prepare the conference despite a few of major difficulties. I like organisation, tables, logistics and planning. It became clear for me that I manage that well, and I thought that the academic community can benefit from that. My function in the Board was the effect of my organisational interests since the Society decided that such a systematic approach would be beneficial for the organisation.

What did I gain? I learned to work under pressure. I found out how to communicate effectively, in particular with my team. I could attend training to get licences, for instance a Monitor of Clinical Research. And the most important aspect was new contacts. On my path, I met many great people, and I had an opportunity to get acquainted with the authorities of the University. That proved to be very useful when on behalf of the Pediatric Surgery Student Scientific Circle I organised an edition of the *Spotkania z Pediatrią* conference, and I became the head of the Organisational Committee jointly with Rafał Suchodolski. We anticipated a great success, but unfortunately due to the pandemic we had to cancel the conference two weeks before it was scheduled to open. My organisational skills proved important when I was offered to get involved in a concert in the *Muzyka Czyni Cuda* cycle, organised by the Stowarzyszenie Pomocy Dzieciom Chirurgicznie Chorym (Association for the Aid of Surgically Sick Children), operating at the Department of Surgery and Urology for Children and Adolescents.

I am just about to complete my studies, and I will no longer be a member of the Student Scientific Society; however, my dreams are numerous, and I hope that they will come true in the next terms of office of the Board. We are interested in becoming a part of life of younger students. We plan to expand our activity so that students can approach us for help in applying for grants, raising external funding. We would like to offer training in soft skills: self-presentation and on-line presentations. We will continue Scientific Sessions, as it is at such sessions that students get ready to participate in other conferences, and later on, stand before scientific commissions being aware of what to expect and what to focus on. We would also like

to expand our popular science activity and continue the initiative of lectures with the Society.

PAULINA OKUŃSKA
a fifth-year student of Pharmacy, deputy president of the Polish Pharmaceutical Students' Association in Gdańsk

I chose pharmacy because I had a very good chemistry teacher. I liked to experiment. I dreamt that I would develop a new drug once. Life, studies and specifically the activity in the Polish Pharmaceutical Students' Association (PPSA) has verified that. Now I know I do not want to stay in a laboratory; I want to be in contact with patients, and this is the direction I am planning to develop.

The activity in PPSA gives me great satisfaction. This is a place to discover new things and use my knowledge and skills in practice. When I was at the third year, the hardest in terms of exams, I became the photographer of the Association for the entire Poland. Photography had always been my passion, a sort of escape from pharmacy. That was a great challenge, fighting with time to balance passions and studies; but I managed, as I failed nowhere.

Another great challenge for me was the organisation of such events as for instance the *Consult with a Pharmacist* initiative. We started a month earlier, but it was only the final moment – the day of the event – that showed how well we were prepared. Each participant of the event had to be appropriately trained, both in the subject matter and for contacts with patients. Students changed during the action; we had to organise everything so that there was no standstill, new ones took their positions and were active. After such an action, we were tired but also greatly satisfied that we had managed. That is a great feeling and joy when you know that after a conversation with you, the patients were motivated to do something with their health.

The Medical University of Gdańsk Choir

JERZY SZARAFIŃSKI Artistic Manager and Conductor of the Medical University of Gdańsk Choir in 1988-2018

Everything started in 1988, when the Choir of the Medical University in Gdańsk celebrated its 45th anniversary. The ensemble with enormous artistic output mobilised me to conceive ambitious development plans for the next 30 years of its activity. It is also the most important period of my 45-year professional and artistic activity.

Due to continuous personnel changes, the work focused on continuous vocal and mental education and developing passion for singing, good music, and higher culture. It is daily work leading to vocal efficiency, beautiful sound, an ambitious repertoire and as a result, high artistic level. Successes crown the hard but satisfactory path. Each concert is of equal importance, we did our best for every listener. For an artist, it is of no importance if there is just one spectator or a thousand people. There are experiences, like at the World Choir Olympics in China, when there are 600 competing choirs from all over the world that, and our ensemble wins a gold and silver medal in two categories. We were so happy we cried and as the conductor I felt proud which was manifested in raising the flags of Gdańsk and the University high. This can be seen in the photos. During numerous

tournaments, it was always most important to enchant the public, to raise emotions – not just to win prizes. We wanted the whole world to know that such university exists in Poland and that we are its important element. The Choir is a beautiful hallmark of the Medical University of Gdańsk. This refers not only about the trips but to events related to the activity of the University such as inaugurations and doctoral promotions at the Artus Court, attended by families of the doctors and with the Choir opening each event with a short concert. I am very happy that the authorities of the University keep supporting and appreciating the role of the Choir of the Medical University of Gdańsk.

JOANNA FURMAŃSKA chorister

I joined the Choir of the Medical University of Gdańsk by accident – I was taking my daughter to additional classes. Instead of coming back to pick her up in two hours, I stayed for 17 years so far. The choir classes were conducted by my university colleague, Jerzy Szarafiński.

I was enchanted with the atmosphere among the choristers, relationships, commitment during rehearsals, and the relaxed atmosphere of breaks, during which the age-mixed company got along very well.



I am a musician by education, so it was easy for me to 'enter' the repertoire. In a choir, you may know your part very well and still be a poor chorister. This is joint effort, hours of rehearsals, polishing and polishing each note that generate a wonderful performance that gives satisfaction and make you shiver. I am most fond of an ambitious oratorian repertoire and a capella music since it is then that you can feel the great unity with the ensemble and the conductor.

I love rehearsals. I go there even when I am tired and common sense tells me to stay home. I have experienced it many times that signing clears the mind, calms me down, gives great joy and it can only be better afterwards. I do not sing in my free time; I arrange other activities to the calendar of rehearsals. Any family vacations are co-arranged to the trips with the Choir.

There are also beautiful choir-related events: weddings of choristers, new generations being born, celebrations of

important events. There have been wedding parties where choristers made one half of the guests.

When someone asks me about by relationship to the MUG Choir, since I do not come from the medical university, I reply that my husband works there.

BŁAŻEJ POŁOM Conductor of the Medical University of Gdańsk Choir

In September 2018, I became the director and artistic manager of the Choir of the Medical University of Gdańsk – a prize-winning and in fact one of the oldest academic choirs

in Poland. I have been working at the University for a relatively short time; however, if I were to define MUG as an institution, as a university but also as choir, since it is the choir that I most involved in, those would be people and history. People's smile, goodness and kindness are easily noticeable – from the meetings with my predecessor Jerzy Szarafiński and my first conversations with the Rector Prof. Marcin Gruchała and people from various departments that I met. That is really exceptional. In 2021, the Choir will celebrate its 75th anniversary, as the University is celebrating this year. I was entrusted with the management of an ensemble with great tradition, history, and outstanding artistic achievements. This is both a great honour but also responsibility to carry on, especially after Jerzy Szarafiński, who was the director of the Choir for the longest time. If I were to stay in the function for 30 years, I would celebrate the 100th anniversary of the Choir. This is a very impressive perspective.

The care for dynamic development and history at the Medical University of Gdańsk are clearly visible. On the one hand it is a research university, the best medical university in Poland, while on the other hand, it is aware of its roots, its beginnings, achievements, history. It relies its future on the foundations of the past. This is a great value for the University and the Choir alike, something that needs to be constantly nurtured.

DARIUSZ GIERS
President of Medical University
of Gdańsk Choir

I was invited to join the ensemble by the wife of a guitarist with whom I played in the AMS band; I must admit that at that time I was not interested in singing in a genre such as this. True, I did function as a vocalist; I have been singing for over 20 years, but rather in rock music. That was my world.

I even did not believe I would pass the audition, but I did without any problem, although I did not read notes. Jerzy Szarafiński accepted me. And here I found my place, I found my real voice.

Only a few years ago, I would not believe that there may be so much interest in choral music in Europe and all over the world. What I have seen in the recent years left me astounded. Over the last 8-9 years, choral music has developed beyond any expectations. Lots of new choirs are being established, competition at events is enormous. We have been watching the developments as a choir with 75 years of tradition and we are very happy with that. The interest in this form of musical activity is translated into an increased level of performance which is noticeable. It can be heard, for instance, at an international contest. Polish, Russian, or Ukrainian choirs are top ensembles. There is spirit dwelling inside of us that can be heard in contest performances – something that grabs the heart and does not let go. I remember a concert in Kaliningrad. Russian, where we were performing a Dvořák's Mass; but in the first part from the altar we had a general repertoire to warm up. Among the songs we sang was Russian piece *Zimnaya doroga*. In the public there was this well-built man accompanied by a petite blonde. He kept crying all the time. I get chills whenever I recall that.

I used to say that the Choir is like my third family but now this is all mixed up. Since I have been working for the ensemble as its President, I must admit that the managerial job is almost a full-time job and I devote lots of my free time pondering on the future of the ensemble. I met my wife in the Choir. Afterwards, our daughter Helena was born. She attends rehearsals with us like the children of other choristers. We are one big family and we feel that the Choir is something more for us than just music together. Everyone would certainly call it in their own way; I will call it a garden of harmony and love. We have to work on that all the time, and this relies on trust, friendship, and love. Such a well-set machine has to function. And so it has for almost 75 years...

ANETA KOREWO
Head of the Department
of Physical Education and Sports

Twenty years ago, I started my adventure with the University. For over two years, I have been Head of the Department of Physical Education and Sports and work in the Sports Centre. When I started, the housing standard of our premises was very poor. One large room, one very small and a gym in the basement. It was there that all the classes were held, sports sections operated; we also practised there, won medals, and trained for numerous competitions. Everybody knew that something new had to be built. It took a long time. Our dreams came true in 2018, as a result of the hard work of teachers of the Department of Physical Education and Sports and efforts by the former Head Anna Kubicka. Certainly, the support of the authorities was also important.

The Sports Centre is a base for all forms of recreational and sports activities. We have excellently equipped space, an auditorium for gymnastics, for combat sports, a gym, fitness facilities, conference and telecardio rooms. This is a facility serving primarily students and sports people; however, we want it to be available also for the MUG staff. It is for them that we hold activities for a healthy spine, pilates, gym exercises, activities for retirees. We held an event to celebrate Poland's 100th anniversary of independence, Pomerania Championship in Sports Aerobics, inter-university volleyball competition. We do our best that the facility is vibrant with life.

Sport is my passion, my life. I have always wanted to be a coach. I was extremely happy when I was entrusted with the

Sports Centre



task to set up a sports aerobic section at a medical university. I have trained great athletes who were only beginning. We started from rudiments. At a first competition, the fifth position among pairs was the best we got. At the Medical University of Gdańsk, there is very few athletes who have any base to practise that sport. It is up to us, the coaches, to show them the right way, give an impulse to act. One day I had a visit of a first-year student of the Faculty of Medicine who had never practised any sport before. He had an allergy and was exempt from physical exercise lessons. After three years of arduous work, he was winning medals. This means that if you really want something,



From the left: Dariusz Łyżwiński, Ph.D., Aneta Korewo, Andrzej Bocian, Stefania Ners, Renata Lewandowska, Kamila Golon, Sandra Szliżewska, Marta Kobusińska

you can do anything. I am always willing to help, however, the other person has to be even more willing.

We also had such gems as Agnieszka Wojewódka. For four consecutive times she was the academic champion of Poland. She had had basic training in gymnastics, so it was somewhat easier. She was the best among all the students in Poland. She represented our University at the World Championship in Belgrade.

The Medical University of Gdańsk is a unique place. The students are real enthusiasts. They are able to combine hard medical studies with sports and other passions. I am happy to be a part of that. Students are drawn to me. I am not sure if this is my charisma, or my knowledge, or personality. Perhaps all the factors. I mother them, while at the same time, I am very demanding. I am happy and satisfied.

Contemporary challenges. The Medical University of Gdańsk in times of the pandemic

ŁUKASZ RĄBALSKI, M.D., PH.D.
Laboratory of Recombinant
Vaccines at the Intercollegiate
Faculty of Biotechnology UG&MUG

The virus has interfered with my scientific plans to some extent... When the pandemic broke out and strict travel bans were imposed, I was to about to commence a traineeship in Edinburgh. I am a molecular virologist. What is happening seems to be the best moment to apply the knowledge I have been acquiring all my life. During the pandemic, when we have problems with diseases caused by viruses, it is the virologists that have the major job to do.

I have been involved in molecular diagnostics of virus infections since my doctorate. Sequencing of virus genomes is something of my particular interest, since the beginning of my scientific career, and it is what I do until this very day. At the beginning, there was a problem with obtaining samples from patients, as due to the high security requirements, we cannot study the virus in the University laboratory. Hence, I got involved in organising a diagnostic laboratory in the Navy Hospital, where I act as a coordinator and medical advisor. As a result, I gained direct access to the samples of coronavirus



RNA. I thought that since the database did not contain any sequences obtained directly from patients, it would be good to make such sequence available to other scientists. I started to obtain virus RNA when the first coronavirus positive patient was detected in Poland. The process was quite lengthy due to procedural reasons. However, since receipt of RNA, the sequence was published within about a week.

In the former Department of Molecular Virology, where I come from, and now the Laboratory of Recombinant Vaccines, we have been working not on a vaccine or a final drug but on diagnostic tests and methods to verify if a vaccine is effective or not. I am also involved in diagnostic processes and sequencing of other isolates from patients. I have been using the most recent sequencing generation based on a nanopore technology, and I hope that in the near future we will place more sequences from Pomerania. The objective is to provide the data to as large a group of scientists as possible. The set shows us if the viruses in Poland are different than those isolated, for instance, in the United States or China. This is important not just in the epidemiological context but also in the context of search for potential vaccines or drugs. If the objective were to develop a product based on a specific sequence and the sequence would vary, a hazard may arise that such drug would not work. It is important to identify those fragments of the virus that remain stable, irrespective of the fact the virus was isolated in China, Poland or the USA.

MACIEJ GRZYBEK, PH.D., D.SC.
Department of Tropical Parasitology of the Institute of Maritime and Tropical Medicine, initiator and coordinator of the COVID-19 drive-thru Test Centre at the Institute in Gdynia

The Institute of Maritime and Tropical Medicine at the Medical University of Gdańsk is a leading entity in Poland and East and Central Europe in the field of



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However, it is people who are its major strength and value, in particular medical and nursing MUG students, who were in the forefront over the recent months as volunteers. Without their involvement, the Centre could not have functioned. Every day they faced many difficulties and the epidemic situation that had surprised everybody. However, they carried on very well in the difficult and stressful reality.

could not have functioned. Every day they faced many difficulties and the epidemic situation that had surprised everybody. However, they carried on very well in the difficult and stressful reality. I have to admit that it had been a long time since I cooperated with such a well organised and excellently prepared team. Everyone did great, both when working on a helpline and at swab collection points. The work was carried out efficiently, in a shift system. All the team members were well aware of their roles and tasks to perform. They were all supporting each other and could rely on each other. In contacts with patients, they demonstrated professionalism and maturity. I am convinced that they are already prepared to the demanding work in health service. Their work was also highly appreciated by patients who had the tests taken at the mobile centre. That was the best reward and motivation for further work.

The Centre will continue operating as long as such diagnostics continues to be necessary. The volunteers are so determined that they promised to stay on duty until the last patient turns up to be examined.

tropical and parasitic diseases. The Institute has a very long tradition and lots of experience but also highly qualified staff and specialised facilities. Therefore, it has been able to create a unique entity supporting sanitary and epidemiological services in fighting epidemics. It is on an initiative of the scientists from the Institute and the great involvement of volunteer students that the first drive-thru COVID-19 test Centre was established in Poland. The adopted formula allowed not only to significantly relieve the admission department of the University Centre of Maritime and Tropical Medicine, but also to reduce the risk of infection of patients who reported with other illnesses.

In the model proposed by us, patients stay in their cars during the examination, thus minimising interpersonal contacts. We have to remember that the coronavirus is transmitted mainly in groups of people and in crowded premises.

The test centre is an interdisciplinary project, and it was possible to implement thanks to the involvement and support of the Provincial Sanitary and Epidemiological Station in Gdańsk and the Pomeranian Voivodeship Office. However, it is people who are its major strength and value, in particular medical and nursing MUG students, who were in the forefront over the recent months as volunteers. Without their involvement, the Centre



ASSOC. PROF. EWELINA KRÓL, D.SC.
Laboratory of Recombinant Vaccines, Intercollegiate Faculty of Biotechnology UG&MUG,
Principal Investigator of the project entitled *Towards safe anti-SARS-CoV-2 coronavirus vaccine – modifications of the spike protein leading to the elimination of ADE effect.*

The concept of the project originated from the many years of experimental experience which has been conducted by our team. In my work, I am involved, among others, in the development of a potential vaccine against the Zika virus, which is strongly associated with the phenomenon of antibody-dependent enhancement of infection (ADE). It occurs when non-neutralizing antibodies are produced following an infection or vaccination, which aggravated symptoms in a subsequent infection.

The knowledge inspired us to address this issue also in relation to the SARS-CoV-2 virus, especially since the literature has confirmed the presence of ADE for other coronaviruses, including both SARS-CoV and MERS. We wondered why no coronavirus vaccine has been approved for human use so far, even though six coronaviruses had already been isolated prior to the current pandemic. A variety of vaccines against these coronaviruses have been developed and tested in both clinical and pre-clinical research studies, however none has been approved



We wondered why no coronavirus vaccine has so far been approved for human use, even though six coronaviruses had already been isolated prior to the current pandemic.

for human use. In our opinion ADE could cause this phenomenon.

During the infection, neutralizing antibodies are produced to inactivate a virus; the vaccine works in the same way. By administering the vaccine antigen, we hope that it will 'force' the immune system to produce neutralizing antibodies, which will prevent any other infection in the future. However, if the administration of the vaccine would result in the production of non-neutralizing antibodies, then – if re-infected (that is, when another viral infection occurs after vaccination) – the effect would be counter-productive. The vaccine would not protect us from infection, and the course of the disease would be even more severe. Instead of destroying the viral particle, the antibodies would let it penetrate the body more efficiently.

The following project aims to characterize the role of sugar chains and their modifications in the Spike surface protein, that will improve the safety and efficacy of future vaccines. Consequently, the second step is to develop a potential anti-coronavirus vaccine based on the modified Spike protein produced in the form of virus-like particles (VLPs).

The Spike protein is a highly glycosylated glycoprotein present on the coronavirus particle. It is assumed that this protein is mainly responsible for the production of neutralizing antibodies, therefore, represents a major target for the development of the vaccine.

Since very little was known about the impact of the sugar chains present in SARS-CoV-2 glycoprotein on viral particles formation and infectivity, we aim to characterise the role of these sugar parts and their modifications on S protein production and maturation. Once the role of sugar chains will be known, we will modify the S protein in such a way to minimize the ADE effect, i.e. to reduce the production of non-neutralising antibodies. The SARS-CoV-2 virus-like particles produced by us using the modified form of this protein will be used as a potential coronavirus vaccine in animal studies. After antigens are administered, we will measure the level of neutralizing antibodies and check whether such antibodies are able to neutralize the virus.

The most recent publications prove that a high level of neutralizing antibodies do not occur in all COVID-19 patients.

It would confirm our theory and make it necessary to prepare appropriate antigens used for vaccination. This is where the results of our research studies can be helpful.

The knowledge in this field has been changing very rapidly; there are currently 165 potential vaccines at various stages of research studies, approximately 30 of which are at the stage of clinical testing in humans. mRNA-based vaccines are currently at the most advanced. Such vaccines have never been approved for human use. Will we have a chance this time? I have no idea, it definitely takes time to examine whether it is fully safe and what can be the long-term effects of its administration.

RADOSŁAW NOWAK, M.D., PH.D.,
Department of Cardiology & Electrotherapy,
co-initiator of the training programme
on lung USG in the COVID-19 disease
in the Cardiovascular Simulation Centre

Training on lung USG in the COVID-19 disease is a project dictated by the needs of the moment. The pandemic has released unprecedented energy in the medical community. For the first time in our history, a disease has occurred that united the entire world medical community. Physicians of various specialisations fight; each on their respective front. Geneticists study the genetic code, immunologists are developing a vaccine, pharmacologists are looking for an effective drug. We, clinicians, are trying to develop treatment algorithms for patients with COVID-19.

At a very early stage of the pandemic, literature reported information on the use of lung ultrasonography in COVID-19, which was based on the experience of centres in countries affected by the disease to a greater extent than Poland. Along with Prof. Marcin Fijałkowski from the First Department of Cardiology, we had an idea to make a training video on lung USG in COVID-19. We invited Natalia Buda, M.D., Ph.D. of the



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For the first time in our history, a disease has occurred that united the entire world medical community. Physicians of various specialisations fight; each on their respective front.

Department of Internal Medicine, Connective Tissue Diseases and Geriatrics, who is an unquestioned expert in lung USG and Krystian Sporysz, M.D. of the Department of Anaesthesiology & Intensive Care to cooperate. We made a several-minute video and shared it on social media. So far, it has been viewed by nearly 12 thousand people.

Afterwards, relying on the infrastructure of the Cardiovascular Simulation Centre, we commenced practical training. So far, we have trained approximately 50 people: physicians, medical rescuers, internists, anaesthesiologists, cardiologists. We have been focusing on the staff of the University Clinical Centre, but we have also trained a group of employees of the rescue service station. We teach the principles for selection of appropriate equipment and settings of USG devices, examination techniques as well as advantages and limitations of the method and its role in differential diagnosis of reasons of breathlessness. The pandemic will eventually pass in the future, but the examination skills will remain.

Epidemiological aspects also affect the training courses' organisation. Firstly, which is quite obvious, the training is carried out with phantoms. Until then, we had groups of 15 people in the Centre; in the time of the pandemic, we train maximum 3 persons at a time to ensure appropriate distance between the trainees. We arrange the trainings so that subsequent groups do not have contact with one another.

The people I speak to after the courses are very satisfied. Many physicians have been convinced that lung ultrasonography is feasible. The paradox is that an opinion prevails in the community that lung USG is impossible. The interest in the courses remains high, and we will continue as long as there is demand.

PROF. MARCIN GRUCHAŁA
Rector of the Medical University
of Gdańsk

Over the centuries, universities have played a key role in shaping enlightened attitudes and educating the young generation in the spirit of truth, respect and openness. The nature of a medical university gives it a special meaning, resulting from social responsibility for the protection of human life and health, regardless of race, nationality, worldview, social status and other conditions. These values were close to the community of the Medical University of Gdańsk from its inception and have not become obsolete to this day. Grateful to our predecessors for the 75 years of beautiful history of our *Alma Mater*, we are writing its new pages in accordance with the intended mission – *Modern education and research for health and development of medicine.*

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We can proudly say that we are a research centre recognised on both national and international scale, a leading Polish research university, valued especially for its potential and scientific effectiveness, measured in the number of internationally recognised publications.



From the very beginning in all our undertaken activities, we have strived for our University to be thoroughly modern centre – cherishing academic traditions, but also boldly taking on contemporary challenges. Owing to knowledge, perseverance, hard work and commitment of the whole community – outstanding scientists, teaching staff, undergraduate and doctoral students, administrative employees – we have built the present strong position of the Medical University of Gdańsk. We can proudly say that we are a research centre recognised on both national and international scale, a leading Polish research university, valued especially for its potential and scientific effectiveness, measured in the number of internationally recognised publications. For many years the MUG consistently employs the development strategy in the areas of research and science, development and implementation. This is confirmed by the University's high positions in the external parametric evaluations of individual departments, rankings, obtaining the status of the Leading

National Scientific Centre in the field of pharmaceutical sciences for the period of 2012-2017 or being included in the prestigious group of 10 Polish research universities by an international team of experts.

Seventy-five years of our University's existence is a time of many significant achievements that significantly influenced Polish science. Today we gladly benefit from the rich experience of our predecessors who – as the rector of previous terms, Prof. Wiesław Makarewicz likes to say – created a solid foundation on which a permanent structure could be erected. We look into the future which draws on the horizon, remembering the maxim of the City of Gdańsk – *boldly, but with caution*. The Medical University of Gdańsk is our joint effort. Each of our employees, undergraduate and doctoral students, graduates, partners and guests has brought us where we are. Thank you for your efforts, commitment and kindness in everyday responsible work of building a strong position of the Medical University of Gdańsk.

RECTORS OF THE MEDICAL UNIVERSITY OF GDAŃSK

Edward Grzegorzewski	1945-1947	Mariusz Żydowo	1981-1982
Michał Reicher	1947-1948	Wiesław Łasiński	1982-1983
Wilhelm Czarnocki	1948-1953	Barbara Krupa-Wojciechowska	1983-1990
Jakub Penson	1953-1956	Stefan Angielski	1990-1993
Stanisław Manczarski	1956-1962	Zdzisław Wajda	1993-1999
Jakub Penson	1962-1968	Wiesław Makarewicz	1999-2005
Marian Górski	1968-1972	Roman Kaliszan	2005-2008
Stefan Raszeja	1972-1975	Janusz Moryś	2008-2016
Zdzisław Brzozowski	1975-1981	Marcin Gruchała	2016-2020
			2020-

Timeline

