

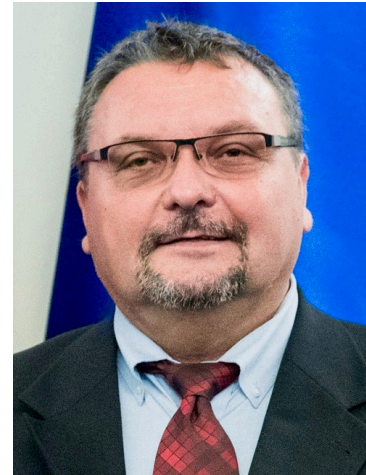
Address:

Private:
Vallaplan 1
58246 Linköping
Sweden
Cell: +46-766-531168
mjelos@gmail.com

Ul. Sienkiewicza 16a
42-595 Twardowice (Bobrowniki)
Poland
Cell: +48-724 222 695
bioappl@gmail.com

MAREK J. ŁOS

BORN: 23. 05. 1965 - Tarnów (Poland)
2 daughters & 2 sons (23, 20, 9 & 7 year-old)
Citizenships: Polish, Canadian and Swedish.



EXPERIENCE:

- 2018 – Biotechnology Center, Silesian University of Technology, (*tenure*)
- 2013 - *Editor*, European Journal of Pharmacology (Elsevier publishing house).
- 2013 - Department of Pathomorphology, Pomeranian Medical University, (*tenure*).

- 2018 – 30.06.2021 Biotechnology Center, Silesian University of Technology, (*director*)
- 2018 – 19 Department of Laryngology, Silesian Medical University, (*Professor*)
- 2016 – 19 Małopolska Center of Biotechnology, Jagiellonian University, Kraków, Poland, *adjunct/group leader*.
- 2017 – 18 Center of Mol. Biophysics, CNRS-Orleans, France, *visiting senior researcher (Le Studium Fellow)*,
- 2017 – 18 Department of Molecular Biology, Faculty of Pharmacy, Silesian Medical University, *adjunct/acting chair*.
- 2016 – 18 Faculty of Physiotherapy, The Jerzy Kukuczka Academy of Physical Education in Katowice, Poland, *Visiting Professor*.
- 2015 - 17 Department of Laryngology, Silesian Medical University, *Visiting Professor*.
- 2010 - 15 Dept. Clinical & Experimental Medicine (IKE) / Integrative Regenerative Med. Center (IGEN), Linköping Univ., Sweden. *Topics*: Regenerative medicine, cellular

reprogramming as a model for carcinogenesis, targeted anti-cancer stem cell therapies

Position: Professor.

- 2007-2010 Dept. Internal Medicine I/Interfaculty Institute of Biochemistry, Univ. Tübingen, Germany. *Topics:* Targeting cancer stem cells, application of viral proteins as anticancer therapeutics. *Position:* Group leader.
- 2007 - 2013 BioApplications Enterprises, Winnipeg, Canada. *Profile:* Scientific Services. *Position:* Director.
- 2003 - 2007 CancerCare Manitoba & Univ. Manitoba. *Topics:* Novel cancer therapies, application of viral proteins as anticancer therapeutics. *Position:* Senior Investigator. Univ. Manitoba, Dept. Biochem & Med. Genet./Dept. Human Anat. & Cell Sci., *Position:* Assoc. Professor.
- 1999 - 2004 Univ. Muenster. Inst. Exp. Dermatology. *Topics:* Apoptin (VP3)-based gene therapy approaches. DNase-X – analysis of the respective knock-out animals. Screening for new modulators of caspase activity (continuation of the collaboration with EVOTEC AG). *Position:* Group Leader.
- 1997 - 1999 Univ. Tuebingen. Medical Clinics; Dept. of Internal Medicine I; Group of Molecular Gastroenterology. *Topics:* Inducible caspase activation as an approach in the liver gene therapy & the treatment of other malignancies. HTLV, a potential vector for T-cell gene therapy. Screening for new modulators of caspase activity (together with EVOTEC AG). *Position:* Project Leader/Junior Group Leader.
- 1995 - 1997 German Cancer Research Center - Heidelberg. Clinical Co-operation Unit, Dep. 465, (P.D. Dr. K-M. Debatin), *Topic:* Clinical aspects of chemotherapy-induced apoptosis. Molecular mechanisms of anticancer drug action. *Position:* Scientist.
- April-December 1994 University Freiburg, Dept. of Biochemistry. Ceramide pathway and activation of transcription factors / apoptosis. *Position:* MD/PhD- student, under the supervision of Dr. K. Schulze-Osthoff.
- 1992 - 1994 German Cancer Research Center - Heidelberg. B7/CD28 signalling -pathway, reactive oxygen intermediates in signal transduction. *Position:* MD/PhD-student, under the supervision of Dr. K. Schulze-Osthoff. *Skills:* Blood cell isolation and culture, proliferation and cytotoxicity assays, immunocytometry, transcription factor activation assays, transfections, cytokine assays, microinjections. RT-PCR, hybridisation techniques, "Differential display" of gene expression patterns.

September, 1993 Spetsai Basic Course of Molecular Immunology - Greece

Oct. – Nov. 1990 Tumor-Biology Lab. Oncology Centre, Gliwice - Poland. *Position:* student
- Under the supervision of Prof. M. Choraży, *Skills:* DNA processing
(Isolation, cloning, Southern Blot)

November, 1989 Pathology Department, Oncology Centre, Krakow - Poland. *Position:*
Student; under the supervision of Assoc. Prof. Z. Niezabitowski; *Skills:*
Histochemistry and Immunohistochemistry - sample processing,

November, 1988 Statistical research concerning smoking habits among medical students;
Volunteer with WHO project.

1989-1990 Summer research at Ludwig Institute for Cancer Research, Uppsala, Sweden

EDUCATION:

1972-1980 Primary School - Olesno, Poland

1980-1984 Secondary School - Dąbrowa Tarn., Poland.

1984-1991 Med. School Krakow, Poland - Degree: BM. in September 1991. 1986 -
1991 Student Scientific Group - Oncology Centre, Krakow, Poland;
Clinical Research, Research Coordinator: Prof. M. Pawlicki. 1987-1988
Clinical Lectures at Stoke Mandeville Hospital (Aylesbury - Oxford
University). 1987-1988 Aylesbury College, English Course. 1990 -
TOEFL and GRE

1995 **MD/PhD** from the University Heidelberg (thesis supervisor:
Prof. P. H. Kramer).

2002 **Habilitation in Molecular Medicine**, from the University of Muenster
“The role of caspases in cancer therapy and in the CD95 system”.

2018 State **Professorship** in medicine (Poland).

ADDITIONAL EXPERIENCE:

March-1995 „Radioactivity-Safety-Course“ - Radioactivity-Safety-Officer.

March-June 1996 Business Management Course at the University of Mannheim.

February-2001 „Biological-Safety-Course“

Grants:

1998 – 1999 Biotechnologie-Modellregion Rhein-Neckar-Dreieck: „The role of Caspases in
apoptosis and inflammation“. Grant No: 03114419, 150.000 DM per year.

- 1999-2002 IKFZ (Interdisciplinary Clinical Research Program): „In-vivo measurement of caspase activity as a new marker for apoptosis and therapy success“. Grant No: 0731-97-44, 190.000 DM per year.
- 2001-2003 DFG-Grant (Lo 823/1-1): "Zelluläre und molekulare Analyse von Chronisch Mucocutaner Kandidose (CMC) - Klonierung (ursächlicher) genetischer Defekte"
- 2001-2004 IZKF-Münster (E-8): "Die Rolle des Transcriptions Factors NF- κ B in der Apoptose und Zellzyklus-Regulation"
- 2001 IMF- Equipment-funds (30.600 DM), LO 41 01 19
- 2001-02 Molecular analysis -Grant LO 21 01 10: "Septische Granulomatose (CGD) - Molekulare Analyse des Apoptose-Verlaufs"
- 2002 IMF- Equipment-funds (5.100 €), LO 42 02 11
- 2001-2005 Deutsche Krebshilfe-Grant (01-1893-Lo I): „Monitoring of cancer treatment *in vivo* by measurement of caspase activity and development of new monitoring methods”.
- 2003-2005 DFG-Grant (Lo 823/3-1): "Molecular and biochemical analysis of DNase-X, -murine knockout model."(149 000 €)
- 2003 IMF-Equipment-funds (18 500 €), LO 41 03 19
- 2003-2007 Tier II, (\$500 000) "Canada Research Chair in new cancer therapies"(\$500 000)
- 2003 CFI, equipment grant: (\$306 000)
- 2004-2006 MHRC, operating grant (\$100 000)
- 2005 Equipment (microinjection system) (\$57 000)
- 2005-2007 Prostate Cancer Research Foundation of Canada: "Targeting the EGR2-BNIP3 signaling in androgen-independent prostate cancer." (\$114 000)
- 2005-2006 CancerCare Manitoba Foundation: "Molecular Characterization of Gene Defects by ALPS-III Syndrome." (\$60 000)
- 2005-2006 Health Science Center Foundation: "Inhibitor-of-Apoptosis-Proteins (IAPs) in tumor chemo-resistance: development of a FRET-based IAP-sensor." (\$34 000)
- 2006 Manitoba Medical Services Foundation: "Cytochrome c a novel apoptotic marker in vivo.", \$20 000.
- 2005-2006 CIHR-RPP, "The role of Nur77-dependent pathways in apoptin's cancer specific toxicity.", \$94 000
- 2005-2009 CIHR, "The role of Nur77-dependent pathways in apoptin's cancer specific toxicity.", \$402 000
- 2006 CCMF, "Targeting the EGR2-BNIP3 signaling in androgen-independent prostate cancer.", \$60 000.
- 2006-2008 MHRC, "The role of DNase-X in development, muscle function, and reproduction, addressed by targeted disruption of the DNase-X gene in murine model.", \$100 000.
- 2006-2009 Dean of Medicine Strategic Research Fund, "Biomedical Functionality Resource.", \$425 000, (*co-applicant*).
- 2006-2007 Intellectual Property Mobilization grant: \$30 000, "Development of novel, cancer-selective peptidomimetics, based on recently discovered peptides that show cancer-selective toxicity."
- 2007-2008 MICH, operating grant, \$40 000, "S100A8/A9, or its cytotoxic signaling pathway – a new target for neuroblastoma-therapy."

- 2010-2015 Landesstiftung Baden-Württemberg - Adulte Stammzellen-2009 (P-LS-ASII/11), operating grant, 668.550 €, "Characterization of self renewal and survival signals in cancer-stem cells." (the money can only be used in Germany)
- 2010-2014 Linköping University startup package (operating expenses) 5 000 000 Kr (±\$800 000)
- 2010-2011 Linköping University startup package (minor equipment) 800 000 Kr (±\$130 000)
- 2010-2011 Linköping University startup package (major equipment) 3 500 000 Kr (±\$550 000)
- 2012 LiU-Cancer-seed grant 50 000Kr (±7 500\$)
- 2012-2013 Cancerfonden "Utveckling av Apoptin-baserade behandlingsmetoder mot Imatinib /Gleevec-resistenta BcrAbl-positiva maligniteter" CAN 2011/521, 1 000 000 Kr, (±153 000\$)
- 2012-2014 IGEN: "Development and refining of oligothophene-based fluorescent dyes for selective detection and targeting of (cancer) stem cells" 640 000 Kr
- 2012-2017 VR-Treatment of the future (K2012-99X -22325-01-5) "Cornea Regeneration as Replacements for Donor Transplantation" 10 000 000 Kr, (co-applicant: 287 000 Kr/a)
- 2012 LIST grant: Partial subsidy to support the organization of "3rd IGEN-practical course in advanced cytometry " 20 000 Kr
- 2012-2013 ERASMUS, teacher exchange grant 2x 8000 Kr.
- 2013 ALF grant, 127 000Kr
- 2013 ALF-equipment grant for the purchase of an adv. microscope 120 000 Kr.
- 2013 LIST grant to form EU-consortium 20 000Kr
- 2014-2016 Cancerfonden (CAN 2013/391) "Utveckling av Apoptin-baserade behandlingsmetoder mot Imatinib /Gleevec-resistenta BcrAbl-positiva maligniteter", 1 500 000 Kr.
- 2013 Industry contract research, 60 000 Kr.
- 2012-2014 Marie Skłodowska-Curie International Incoming Fellowship (PIIF-GA-2011-302782), 181 418 € (contact scientist)
- 2015 ALF grant, 75 000Kr
- 2016-2021 NCN grant 2016/21/B/NZ1/02812, "Interactions of stem cells with artificial ECM" 1 502 800 PLN (~350 000 €)
- 2017-2018 Le Studium/Smart Loire Valley General Program, cofunded by the EU-Marie Skłodowska-Curie Actions, "Effects of electro-conductive, biomaterial-based tissue scaffolds on stem cells and transdifferentiation-derived somatic cells", grant # 665790, (~85 000 €)
- 2018-2021 RANB grant #114.1.2/2017, "Implementation to surgical practice new technologies for reconstruction and regeneration of damaged tissues in the craniofacial area." ~1 700 000 Euro (coapplicant)
- 2019 - 2024 NAWA (Dr. M. Włodarczyk-Biegun), "Elektropisanie stopionym polimerem do rekonstrukcji interfejsow tkankowych inspirowane budowa gąbek morskich (Melt electrowriting of hard-soft interfaces inspired by deep-sea sponges)" 1 840 000 PLN (440 000 €)

Grant referee by:

DFG, (2002-04)
 Canadian Breast Cancer Research Agency, (2005-2006)
 Science Foundation Ireland – Basic Research Program, (2004-06)
 IMF (Innovative Medical Research) – University of Muenster, Germany (2002-3)
 Canadian Institute of Health Research –external reviewer (2005-2008,
 2016)
 Michael Smith Foundation for Health Research –external reviewer (2006)
 Dutch Cancer Society –external reviewer (2006-2008)
 Medical Research Scotland –external reviewer (2010)
 The Netherlands Organization for Scientific Research (NWO) - external reviewer
 (2010)
 LE STUDIUM®, French Agency for Research - external reviewer (2011-12)
 Research Foundation - Flanders (FWO), external reviewer (*since* 2012)
 NCN, National Science Center, Poland, (*since* 2012)
 National Institute for Medical Research Development, Iran (2015)
 French National Research Agency (ANR), (2016)
 NCSTE (National Centre of Science and Technology Evaluation), The Republic of
 Kazakhstan, external reviewer (2014, 2017-21)
 Health and Medical Research Fund, Hong-Kong, external reviewer (*since* 2013-)
 Alzheimer Forschung Initiative e. V. (2018)
 Research Council KU Leuven, Belgium, (2020)
 New Frontiers in Research Fund, Canada, (2020-21).

Grant Review Panel Member:

Canadian Institute of Health Research: Cancer Biology and Therapy, panel member
 and acting chair (2006-09)
 NCIC: Panel G1, panel member (2006-2007)
 Member of the College of Reviewers of the Canada Research Chairs Program
 (2007-13)
 Pathobiology-3 (PBY3) panel member, BCRP, US-Dept. Defense (DoD) (2009,
 invitation declined due to the over-
 commitment)
 European Commission, Horizon 2020, PHC3-2015, panel member
 Canadian Institute of Health Research: Project Scheme (general) competition (2016)

European Commission, Horizon 2020-SC1-2016-2017 (*Personalized Medicine*),
panel member

European Commission, Horizon 2020-SC1-PM-10-2017, (*Personalized Medicine*),
panel member

Memberships: Polish Association of Clinical and Experimental Immunology (*since 2003*)

European Association for Cancer Research (*since 2005*)

European Cell Death Organization (*since 2011*)

Editorial Board member:

European Journal of Pharmacology (Elsevier), *Editor (since 2013)*

Cancers (MDPI Publishing Group),

Archivum Immunologiae et Therapiae Experimentalis (Springer)

Journal of Integrative Medicine & Therapy (Avens)

The Open Medicinal Chemistry Journal (Bentham Science Publishers)

World Journal of Experimental Medicine (WJEM), (Bashideng Publishing Group)

International Journal of Molecular Sciences, (MDPI Publishing Group)

Major teaching contributions

IGEN practical mini-course in advanced cytometry February-2012 - (*organizer*)

IGEN International practical course in advanced cytometry (EACR, ECDO),

Sept-2012 – 2015 (*organizer*)

Stem Cells and Applied Regenerative Medicine, MSc-level, with PhD-student voluntary enrolment, September 2013 - 2015, (*course developer and director*)

IGEN Summer School in advanced cytometry (ECDO-advertised), July-2015, (*coorganizer*)

Pomeranian Medical University: Course: (Cancer) stem cells and regenerative medicine, 2014 -2018, (*course developer and director*)

Organization of conferences

Gliwice Scientific Meeting – since 2006 – 2020 (*co-organiser*)

Orleans, Le Studium, “Stem cells & cancer stem cells - regenerative medicine and cancer“ 11-13 June 2018 (*organiser*)

Organization of other events

‘Wild’n Crazy – 2011’, multidisciplinary internal meeting of experts to advance research at Linköping University – *organizer & moderator*

Executive Experience

- 2004-2007 Member of the Steering Committee of GCCRD (The Genomic Centre for Cancer Research and Diagnosis) at Manitoba Institute of Cell Biology
- 2011-2015 Member-, and Scientific Secretary, of the Advisory Board of IGEN (Integrative Regenerative Medicine Center) at Linkoping University
- 2016- Member of Board of Trustees, Kowsar publishing house.
- 2018- 2021 Director, Biotechnology Center, Silesian University of Technology.

Service as an expert:

- 24-25.06.2019, Gdańsk, Poland, II Forum “Wizja rozwoju” (ang.: The Vision of Development of Poland), expert on the committee: “The Achievements of Biotechnology” (pol.: Osiągnięcia Biotechnologii).
- 15.06.2021, Katowice, INTARG-21, 14th International Innovation Show, Panel: “Collaboration between Academia and Industry”; panel coorganizer and member.

Patents:

- 1.) "Method for apoptosis diagnosis in cells": German Patent No: DE1996019639450; International Patent No: WO 9813517.
- 2.) " Betulinic acid and derivatives thereof useful for the treatment of neuro-ectodermal tumors": International Patent No: WO 024762, (US 6,369,109).
- 3.) “Method for the detection of apoptosis by determining apoptosis-specific markers released into an extracellular medium through cellular release mechanisms”; EP 00 115 722.1, WO 2002/008752.
- 4.) "Use of Brevinin-2R in the treatment of cancer" PCT/US60/686,414; WO 2006/128289.
- 5.) “Methods of Inducing Apoptosis of Cancerous Cells” (US60/793,65, WO12/297,526).
- 6.) “Selective Release of Pro-Apoptotic Bcl-2 Family Members and their Contribution to the Bystander Effect” (PCT/US60/891.792).
- 7.) “Apoptin induces inhibition of Bcr-AbI kinase in CML cells” (USSN 60/983,946).
- 8.) “Sposób otrzymywania materiałów opatrunkowych do zastosowania w leczeniu ran zespołu stopy cukrzycowej oraz materiały opatrunkowe otrzymane tym sposobem” (*ang. A method for the preparation of dressing materials for the use in wound healing of diabetic foot syndrome and dressing materials obtained by this method*), P.427756, [WIPO ST 10/C PL427756].

Prizes and distinctions:

- 2003-2007 Tier II, career award “Canada Research Chair in new cancer. therapies”(\$500 000)
- 05.2018 Jinan University, Guangzhou, China, (*Visiting Professorship, honorary appointment*),
- 10.2020 Tier-II prize for administrative achievements as a leader of Biotechnology Center
- 11.2020 Nomination to the distinction “Scientist of the future” (*pl.: ‘Naukowiec Przyszłości’*)

11.2020 the 75th anniversary medal of Silesian University of Technology, for the input and achievements in the development of the University

Languages: Polish-, English-, German- fluently, Russian, -passively,
Swedish-(rudimentary).

A handwritten signature in blue ink, appearing to be 'ML Los'.

26.07.2021.