Curriculum vitae, G. Julius Vancso

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Personal: Date of birth: June 9, 1954

Citizenship: Hungarian and Canadian dual citizen

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Employment History: (beginning from most recent)

University of Twente:

- Full Professor and Chair, Department of Polymer Materials Science and Technology, Faculty of Science and Technology (TNW) and MESA+ Institute for Nanotechnology, since November, 1994.
- Division Head, Chemical Engineering 2009-2015.
- Scientific Director A.I., MESA+ Research Institute for Nanotechnology September 2002 January 2003.
- Associate Dean, Faculty of Chemical Technology, University of Twente, 2001-2002.

Nanyang Technological University, School of Materials Science and Engineering, Singapore, Visiting Professor2011-12; and since July 2014. <u>Donghua University</u>, Department of Chemistry, Shanghai, PRC, Consulting Professor, since May, 2017; China 1000 Talents Distinguished Professor since January 1, 2018.

University of Toronto: Associate Professor with tenure, Department of Chemistry, July 1, 1993 - April 30, 1995;

Adjunct Professor, Department of Metallurgy and Materials Science, 1990 - 1998;

Associate Professor, tenure track, Department of Chemistry, 1990-1993;

OCMR* Visiting Assistant Professor, Department of Chemistry, 1988-1990. (*OCMR: Ontario Centre for Materials Research)

Swiss Federal Institute of Technology (ETH-Zürich): Department of Materials Science, Institute for Polymers:

Lecturer and Research Associate, 1986-88 (teaching contract from Professor P. Pino);

Research Associate, 1984-1986; Postdoctoral Fellow and Postgraduate Student 1983-1984.

Central Research Institute for Chemistry, Hungarian Academy of Sciences: Research Associate 1982-83. Graduate (Ph.D.) Student 1979-1982.

Other professional appointments:

- Donghua University, Department of Chemistry, Shanghai, PRC: Visiting Consulting Professor, 2017.
- Agency for Science, Technology and Research (A*STAR Singapore) IMRE and SERC: Visiting Principal Investigator, 2006-2014.
- Swiss Federal Institute of Technology (ETH-Zürich), Department of Materials Science: Visiting Professor (sabbatical leave), March-September 2012.
- Technical University of Catalunia, Barcelona, Spain: Visiting Professor, 2010.
- University of Technology and Economics, Budapest: Visiting Professor "Pro Renovanda Cultura Hungariae", 2002.
- University of California at Santa Barbara, Materials Research Laboratory, USA: Visiting Professor (sabbatical leave), January-May, 2001.

Current major committee appointments:

- Scientific Advisory Board, German Cluster of Excellence, Living Adaptive and Energy-Autonomous Materials Systems, University of Freiburg.
- Member, Academic Committee, Int. Joint laboratory for Low-Dimensional Materials & Member: International Advisory Committee of State Key Laboratory FPM, Donghua University, Shanghai.
- University of Twente, Prices and Awards Committee, Chair, since 2014.
- Chair, International Advisory Board, Natural Sciences Research Centre, Hungarian Academy of Science, since 2016.
- ISPAC International Symposia on Polymer Analysis and Characterization (Chair of the Governing Board).

Major editorship appointments:

- Elsevier Publishing House: Editor-in-Chief, European Polymer Journal & Founding Editor of the Macromolecular Nanotechnology section, since 2002.
- Royal Society of Chemistry: Editor, Nanoscale; 2009-2015.

Education:

<u>Postgraduate studies</u> (ETH-Zürich): Polymer Materials Science, Polymer Physics, 1983-84.

<u>Ph. D. in Solid State Physics and Statistical Physics</u> ("summa cum laude"), 1982. University of Sciences "Eötvös Lorand", Budapest; and Central Research Institute for Chemistry, Hungarian Academy of Sciences, Budapest. "Physical Properties of Polyenes and Polyenyl Radicals as Model Systems for Conducting Polymers".

<u>M. Sc. in Physics</u> ("summa cum laude"), 1979. University of Sciences "Eötvös Lorand", Budapest; and Central Research Institute for Physics, Hungarian Academy of Sciences, Budapest. Thesis: "Dielectric Properties of Quasi-One-Dimensional Synthetic Metals and Semiconductors".

Publishing activity, journal articles:

In journals: ca. 550 (co)authored papers printed +/-, ca. 5 in press.

Total number of citations since 1988 (WOS; 09-26-2018) 15,000 ++; h-factor: 61.

Patents: seven granted/under consideration.



Books:

- Holger Schönherr, G. Julius Vancso;

Scanning Force Microscopy of Polymers, Springer Laboratory Series, Springer, Heidelberg (2010)

- G. Julius Vancso, Günter Reiter;

Ordered Polymeric Nanostructures at Surfaces, Advances in Polymer Science, Springer (2010)

Approximately 300 (+) invited/keynote/plenary lectures delivered.

Current Research Activities:

Size of research group: +/- 25 students & co-workers in the Netherlands, 3 +/- in Singapore, 3 in Shanghai.

Research group structured in three major clusters including: Materials Chemistry, Macromolecular Nanotechnology and Polymer Materials Technology & Technology Transformations. Current activities include the following project areas: (a) Nanotechnology of soft condensed matter; (b) Single molecules and nanoparticles; (c) Materials chemistry of stimulus responsive ("smart") and organometallic polymers. (d) Nanoporous & cellular polymers. (f) Biomimetic surface engineering for adhesion control (adhesion promotion, antifouling). (Applications: thermal insulation, biomedical, surface technology, molecular delivery, sensors, actuators, microfluidics, catalysis in microreactors)

Granted Ph.D. Theses Supervised:

University of Toronto, Department of Chemistry, & Department of Metallurgy and Materials Science: 3 Theses

University of Twente: 42 Theses

Co-Supervised Ph.D. Thesis: 3 (Tsinghua University/Jilin University, PR China; Mahidol University, Bangkok, Thailand; Catania University, Italy)

Conference chair and (co)organizer (selected examples):

- International Conference on Biomimetic and Zwitterionic Materials; 2019 (Rolduc, the Netherlands).
- Frontiers in Polymer Science; 2019 (Budapest, Hungary).
- Advanced Macromolecular Systems Across the Length Scales (AMSALS):
 AMSALS I Enschede (2006); AMSALS II Enschede (2007); AMSALS III Enschede (2008); AMSALS IV Siofok; Hungary (2012), AMSALS V Darmstadt, Germany (2013).
- •ISPAC 15 Enschede (2002); ISPAC 25 Rolduc (2012); ISPAC 29 Singapore (2016).
- International Symposia on Scanning Probe Microscopy of Polymers (SPMP):
 SPMP Rolduc (2003); SPMP Rolduc (2012); SPMP Toronto (2014); SPMP Changchun (2016).
- EuCHEMS, Seville, 2016.

Memberships in professional societies:

 Fellow, Royal Society of Chemistry.
 Member, Royal Netherlands Chemical Society.
 Member, European Physical Society (Past Member, Macromolecular Physics Executive Board).
 Member, American Chemical Society, Polymer Chemistry and Polymer Materials Science and Engineering.
 Member, Canadian Institute of Chemistry.
 Member, American Association for the Advancement of Science.

Professional activities (selected examples):

- Dutch Program on High Tech Materials and Systems; Program Management Committee, Member, 2014-2019.
- Leibniz Institute for Natural Product Research, Jena; International Advisory Board, Member; since 2016.
- University of Twente: Department Head, Department of Chemical Technology and Member of the Faculty Management Team (Faculty of Science and Technology) (2010-2014).
- Hungarian National Foundation for Research, Development and Innovation, Office of the Prime Minister, Member of the International Advisory Board (2015-2018).
- Hungarian Academy of Science, Chemical Research Centre; Member, Advisory Board (2009-2012); Advisor to the president (2012-2013).
- University of Twente: Associate Dean, Faculty of Chemical Technology, University of Twente, May 2001-September 2002.
- NWO-Netherlands Scientific Organization VICI Beta Committee, Jury Member 2013; TOP/VIDI and ECHO Program Committees, NWO Instrument Infrastructure Program ("Middelgroot"): jury member/chairman; several committees.
- ACS Presidential Panel for internationalization, invited member.
- Research Assessment Committee Chairman, Materials Science, Hungarian Academy of Sciences, 2013.
- · Advisory Board member, Technical University of Darmstadt, Responsive Polymers program.
- Foundation PTN ("Polymer Technology Netherlands"), Board Member, 2000-2012.
- Hungarian Strategic (Large) Research Program OTKA, Large National Programs, Jury Member, 2006-2014.
- Science Foundation Ireland, Research Frontiers Program, Jury Member, 2008, 2012.
- Hungarian Academy of Science, Chemical Research Centre; Member, Advisory Board (2009-2012).
- Academy of Finland, Review panel member for polymer chemistry and biomaterials, 2011.
- Max Planck Society, Germany, various advisory and director selection committees (MPI Mainz).
- FWO Belgian Scientific Organization, Organic and Supramolecular Chemistry Program, Jury Member (2003-2009).
- Scientific Advisory Board Member, A*STAR (a government statutory board), Singapore, (2002-2005).
- University of Twente, Rector's Advisory Committee, Extraordinary Professorial Appointments.
- University of Twente, Tenure Track Advisory Committee, various professorial appointment committees.
- Science Advisory Board, Nanotechnology program, University of Leeds and Sheffield, 2012.
- Research Assessment Committee, University of Padua, 2007.
- European Physical Society, Division for Macromolecular Physics, Board Member (retired).
- Program Steering Executive Committee, Dutch Priority Program of Materials (retired).
- Working Party for Macromolecules, Dutch Science Organization (NWO-CW), Member (2000), Secretary (2001), Chairman (2002), Executive Board.
- Program Manager, Dutch Coatings Forum for Waterborne Coatings Systems (retired).

• Committee chairman and organizer, International Curriculum for M.Sc. in Nanotechnology, University of Twente (retired).

Major Awards and Honours:

- China National 1000 Talents Senior Scholar Award 2018.
- Shanghai Province International Talent Award 2018.
- Elected External Member of the Hungarian Academy of Science, May 2010.
- Elected Fellow of the Royal Society of Chemistry, UK, 2010.
- NWO-TOP Award (Netherlands Foundation for Scientific Research), "Nanotechnology of Stimulus Responsive Polymers", 2007.
- Dean's Performance Excellence Award, University of Toronto, 1994.
- Tenure, Faculty of Arts and Science, Department of Chemistry, University of Toronto, 1993.
- Center of Excellence Award by the Prime Minister of Ontario in Materials Science, 1989. (For nanoscale surface studies of polymers; the first Atomic Force Microscope laboratory in Canada in soft matter science.)
- Young Investigator Award of the Hungarian Academy of Science for the Ph. D. Thesis in 1983

Knowledge valorisation:

Chief Executive Officer and Co-Founder, SULIS Polymers Ltd. (Performance polymers for quality life); Co-founder and co-owner of Aerotech Ltd. (development of nanostructured polymeric materials for thermal insulation); Co-founder Advanced Scanning Probe Solutions (nanotechnology and microscopy in materials science). Author of 7 patents in various areas of polymer technology, nanotechnology and materials science. Regular consultant of major international polymer producers. Legal Advisor: Patent attorney office "Hoyng, Rokh and Monegier".