

CV of Professor Virgil Percec

January, 2024

Virgil Percec

P. Roy Vagelos Chair and Professor of Chemistry

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Education

- B. S. 1969 Department of Organic and Macromolecular Chemistry, Polytechnic Institute of Jassy, Romania
- Ph. D. 1976 “Petru Poni” Institute of Macromolecular Chemistry, Jassy, Romania
- Postdoctoral July-August 1981, Institute of Macromolecular Chemistry, Hermann Staudinger Haus, University of Freiburg, Germany
- Postdoctoral September 1981-March 1982, Institute of Polymer Science, University of Akron, United States

Professional Appointments

- 1977-1980 Research Associate, Senior Research Associate, Adjunct Assistant Professor: Institute of Macromolecular Chemistry and Polytechnic Institute, Jassy, Romania
- 1982-83 Assistant Professor, Department of Macromolecular Science and Engineering, Case Western Reserve University, Cleveland, OH
- 1984-85 Associate Professor, Department of Macromolecular Science and Engineering, Case Western Reserve University, Cleveland, OH
- 1986-93 Professor of Macromolecular Science, Department of Macromolecular Science and Engineering Case Western Reserve University, Cleveland, OH
- 1993-99 Leonard Case Jr. Chair and Professor of Macromolecular Science and Engineering, Case Western Reserve University, Cleveland, OH
- 1999- The Inaugural P. Roy Vagelos Chair and Professor of Chemistry, Department of Chemistry, University of Pennsylvania, Philadelphia, PA
- Honorary Professor of the Australian Institute for Bioengineering & Nanoscience (AIBN), University of Queensland, Brisbane, Australia, 2013-December 31, 2020
- Advisory Professor Shanghai Jiao Tong University March, 2018-February, 2023

Visiting Professor

- University of Freiburg, Freiburg, Germany (June-August 1984, March 1985, June 1987)
- Royal Australian Chemical Institute (August 1987)
- Royal Society of Chemistry, U. K. and British Society of Liquid Crystals (April 1989)
- University of Ulm, Ulm, Germany (March 1994, 1998)
- Max Planck Institute for Polymer Research, Mainz, Germany (June 1989, 1991, 1998, 2011, 2012)
- Royal Institute of Technology, Stockholm, Sweden (May 1990, December 1999, May 2005, October 2013, October 2014, October 2015, October 2016, 2017, 2018, 2019)

Editor

- Journal of Polymer Science Part A: Polymer Chemistry, 1996-2013
- Historical Editor Journal of Polymer Science
- Advisory Editor, Journal of Polymer Science Part A: Polymer Chemistry, 2013-
- Associate Editor, Polymer International, 2006-
- Book Series on Liquid Crystals, CRC Press, 2008-2013
- Advances in Polymer Science, 2014-
- Guest Editor, Chemical Reviews, 2009, 2011, 2016
- Guest Editor, Advances in Polymer Science, 2013
- Historical Editor, Journal of Polymer Science, 2013-
- Guest Editor, Polymers, 2023

Member of Editorial Boards

- Polymer Bulletin, 1981-
- Journal of Polymer Science, Part A: Polym. Chem. Ed. 1986-
- Macromolecular Syntheses, 1988-1992
- Macromolecular Reports, 1989-2002
- Journal of Macromolecular Science-Pure Appl. Chem., 1990-2002
- Journal of Materials Chemistry, 1990-1996
- Macromolecules, 1990-1993
- Chemtracts: Macromolecular Chemistry, 1991-1993
- Progress in Polymer Science, 1992-
- Die Makromolekulare Chemie, Macromolecular Chemistry and Physics, 1993-
- Die Makromolekulare Chemie, Macromolecular Rapid Communications, 1993-
- Chemistry of Materials, 1997-2000
- Revue Roumaine de Chemie, 1998-

- Biomacromolecules, 1999-
- Quarterly Review, 1999-
- e-Polymers, 2001-
- Revista de Chimie (Bucharest), 2003-
- Journal of Nanostructured Polymers and Nanocomposites, 2005-
- Chemical Reviews, 2005-2016
- Polymer International, 2006-
- Advances in Polymer Science, 2014-
- ACS Central Science, 2014-
- Giant, 2020-
- Natural Sciences, 2021-

Memberships

- American Chemical Society, Divisions of Organic Chemistry, Polymer Chemistry & PMSE
- Honorary Member International Union of Pure and Applied Chemistry
- American Association for the Advancement of Science
- Honorary Member of the Israel Chemical Society
- Honorary Member of the Romanian Society of Chemistry
- Member of the Sigma Xi
- Foreign Member of the Academia Europea

Awards (Selected Examples)

- National Science Foundation Research Award for Creativity in Research 1990, 1995, 2000, 2016
- National Science Council (Taiwan), March 1991
- Honorary Foreign Member of the Romanian Academy 1993
- Humboldt Research Award for Senior U.S. Scientists, 1997
- Honorary Citizen of the City Siret, Bucovina, Romania, 1999
- Fellow of the International Union of Pure and Applied Chemistry, 2001
- PTN Polymer Award from the Netherlands, 2002
- Fellow of the PMSE Division of ACS, 2003
- American Chemical Society Award in Polymer Chemistry 2004
- Fellow of the American Association for the Advancement of Science, 2004
- Staudinger-Durrer Medal, ETH, Zurich, Switzerland, 2005
- Doctor Honoris Causa, Polytechnic University, Iasi, Romania, 2007
- Doctor Honoris Causa, University of Athens, Athens, Greece, 2007
- The International Award and Silver Medal of the Society of Polymer Science, Japan, 2008
- The Herman F. Mark Medal and The Polymer Award from the Austrian Research Institute for Chemistry and Technology, Vienna, Austria, 2008
- Honorary Member of the Israel Chemical Society, 2009
- The Inaugural Kavli Foundation Innovations in Chemistry Lecture and Award, American Chemical Society Meeting, Anaheim, Spring 2011

- Humboldt Research Award for Senior US Scientists 2011-2012
- The Joseph and Josephine Rabinowitz Award for Excellence in Research from The University of Pennsylvania School of Dental Medicine, 2012-2013
- Honorary Professor of the Australian Institute for Bioengineering & Nanoscience (AIBN), University of Queensland, Brisbane, Australia, 2013-
- Honorary Foreign Member of the Royal Swedish Academy of Engineering Sciences IVA, 2013
- Honorary Member of the Romanian Society of Chemistry, 2014
- “Petru Poni” Medal of the Romanian Society of Chemistry, 2014
- The Inaugural American Chemical Society in Collaboration with the Romanian International Chapter “Cristofor Simionescu” Award for Excellence in Macromolecular Chemistry, 2015
- The Inaugural “Cristofor Simionescu” Medal of the American Chemical Society in Collaboration with the Romanian International Chapter, 2015
- The Inaugural Aldrich Lecture at MIT, 2015
- Ben-Gurion University of the Negev, Israel, Department of Chemistry and the Faculty of Natural Science’s Distinguished Scientist Visitor, March, 2016
- Doctor Honoris Causa, Polytechnic University, Bucharest, June 6, 2016
- Advisory Professor of Shanghai Jiao Tung University, March 2018- February, 2023
- Member of the Laboratory for Research on the Structure of Matter-MRSEC at Penn, 1999-
- Member of the Center for Targeted Therapeutics and Translational Medicine at the University of Pennsylvania, 2010-
- Member of the Center for Soft and Living Matter, University of Pennsylvania, 2021-
- Member Graduate Group, Department of Materials Science and Engineering, University of Pennsylvania, 2019-
- Elected Member Sigma Xi 2020
- Elected Foreign Member of Academia Europaea 2020
- Member of the Penn Institute for RNA Innovation, 2023-
- Listed as “One of The World’s Most Influential Scientific Minds of Our Time” by Thomson Reuters, 2014, 2015, 2016, and “Global Highly Cited Researchers” List by Clarivate Analytics for 2018. This list recognizes world-class researchers for their exceptional research performance based on multiple highly cited papers that rank in the top 1% by citations for field and year in *Web of Science*.
<https://clarivate.com/blog/news/global-highly-cited-researchers-2018-list-reveals-influential-scientific-researchers-and-their-institutions/>

Endowed, Plenary and Invited Lectures (Selected Examples Out of Over 1, 295)

- The Raychem Lecturer, Chemistry Department, University of California, Berkeley, CA, 1996
- The 4th Aggarwal Lecturer in Polymer Science, Chemistry Department, Cornell University, NY, May 19-21, 1997

- The 9th Annual Milkovich Memorial Lecturer in Polymer Science, University of Akron, OH, October 22-23, 1997
- Plenary Lecture at the 36th IUPAC International Symposium on Macromolecules. Warsaw-Lodz, Poland, 2000
- The Organic Synthesis Lecturer, Colorado State University, CO, 2002.
- The Inaugural Woodward Lecturer "Frontiers in Chemical Sciences", Harvard University, MA, 2004
- The 7th Annual Rohm and Haas Lecturer in Polymer Chemistry, University of California Berkeley, CA, 2005
- The Staundinger-Durrer Lecturer, ETH, Zurich, Switzerland, 2005.
- The Charles William Murtiashaw II Lecturer, University of South Carolina, December 1, 2006
- The Foster Chemistry Lecture, SUNY, Buffalo, NY, 2006
- The Distinguished Lecturer, National Institute of Standards and Technology, Gaithersburg, MD, 2007
- The New Journal of Chemistry Endowed Plenary Lecture at International Dendrimer Symposium IDS-5 - Bordeaux, France 2007
- The Whitby Lecturer, University of Akron, 2008
- The Lecturer of the Organic Chemistry Division of the Conference Universitaire de Suisse Occidentale, 2008
- The Centennial Michael M. Szwarc Lectureship, State University of New York, College of Environmental Science and Forestry, 2009
- The Inaugural Kavli Foundation Innovations in Chemistry Lecture, American Chemical Society Meeting, Anaheim, Spring 2011
- Plenary Lecture at the 3rd Biodendrimer Symposium on Biological Applications of Dendrimers, Toledo, Spain, 2012
- Plenary Lecture at the 9th International Symposium for Polymer Therapeutics. From Laboratory to Clinical Practice, Center de Investigation Principe Felipe, Valencia, Spain, May 28-30, 2012
- The Ramós Areces Welcome and Plenary Lecture, Ateneo de Madrid, IDS 8, 2013
- The Dillon Steele Lecture at The University of Queensland, Brisbane, Australia, 2013
- Plenary Lecture at The RIKEN Center for Emergent Matter Science (CEMS) International Symposium on Supramolecular Chemistry and Functional Material, University of Tokyo, Japan, 2013
- Plenary Lecture at the 13th Pacific Polymer Conference, Kaohsiung, Taiwan, 2013
- Plenary Lecture at KAUST Polymer Conference "From Synthesis to Properties and Applications, 2013
- Plenary Lecture at the 5th International NanoBio Conference & 3rd International Conference on BioNano Innovation, NanoBio Australia, Brisbane, Australia, 2014
- Opening Keynote Plenary Lecture at the Gordon Research Conference on "Self-Assembly & Supramolecular Chemistry", Renaissance Tuscany Il Ciocco Resort & Spa, Italy, 2015

- Opening Plenary Lecture at the 4th International Symposium “Frontiers in Polymer Science”, Riva del Garda, Italy, 2015
- Plenary Lecture, Kármán Conference “From Molecular Materials to Complex Adaptive Molecular Systems.” Vaalsbroek Castle, Netherlands, 2015
- The Inaugural Aldrich Lecturer at MIT, 2015
- Plenary Lecture US-Japan Seminar, Niseko, Hokkaido, Japan, June 2016
- Plenary Lecture, Warwick Polymers 2016, UK, July 2016
- Plenary Lecture Biogel Symposium, Aachen University, Germany, November 2016
- Plenary Lecture, International Symposium on Supramolecular Chemistry, Jilin University, Changchun, China, September, 2017
- Plenary Lecture, The Fourth International Symposium “Multivalent Interactions of Pathogens with Biological Surfaces” Free University Berlin, October, 2017
- Plenary Lecture, International Symposium “Bioinspired Macromolecular Systems” Aveiro, Portugal, November, 2017
- Master Distinguished Lecture, Shanghai Jiao Tong University, March 26, 2018
- Plenary Lecture Second Theodore von Karman-Discussion Conference on Materials for Life, Kardinal Schulte Haus, Bergisch Gladbach, Germany, April, 2018
- Centennial Plenary Lecture at the Centennial Anniversary Symposium of the Royal Swedish Academy of Engineering Sciences IVA, The Importance of Materials in Society, Stockholm, Sweden, May 14, 2019
- Keynote Lecture, 14th International Symposium on Macrocyclics and Supramolecular Chemistry.” Lecce, June 2-6, 2019, Italy
- Keynote Lecture, Eleventh International Dendrimer Symposium, IDS-11, July 14-18, 2019, Funchal, Madeira Island, Portugal
- Invited Lecture, South China Advanced Institute for Soft Matter Science and Technology (AISMST), South China University of Technology (SCUT), Guangzhou, September 9, 2019
- Invited Lecture, Royal Institute of Technology, Stockholm, October 28, 2019
- The 4th Honorary Speaker, Fudan Forum on Polymer Science and Engineering, Department of Macromolecular Science, Fudan University, Shanghai, November 25th, 2019
- Plenary Lecture, International Symposium Matter to Life, Ringberg Castle, Bavaria, Germany, December 15-18, 2019
- Invited Lecture, USA-Israel Joint Symposium “Polymeric Materials from Synthesis to Application.” Division of Polymeric Materials Science and Engineering, ACS Spring National Meeting, Philadelphia, March 22-26, 2020
- Opening Plenary Lecture Presented at the “Swedish Royal Academy of Engineering Sciences, IVA Symposium,” IVA Wallenberg Hall, Sweden, September 29, 2020

Chair and Member of National and International Committees (Selected Examples)

- International Symposium on New Polymerization Reactions and Reaction Mechanisms, Atlanta, April 14-19, 1991 (Chair)
- Polymer Science and Engineering. The Shifting Research Frontier Workshop, National Research Council, Washington, D.C., March 26-27, 1992.
- International Symposium on New Macromolecular Architecture and Supramolecular Polymers, Denver, March 28-April 2, 1993 (Chair)
- European Polymer Federation Workshop on "Molecular Engineering of Side Chain Liquid Crystalline Polymers," Yverdon-les-Baines, Switzerland, June 9-11, 1993 (Chair)
- The Sixth Bilateral US-Japan Seminar on Polymer Synthesis, Santa Rosa, CA, November 6-12, 1993 (Chair)
- 35th IUPAC International Symposium on Macromolecules, Akron, July 11-15, 1994 (Chair)
- Executive Committee, Division of Macromolecular Chemistry, IUPAC
- IUPAC Commission on Polymer Characterization and Properties
- IUPAC Working Party on Polymer Liquid Crystals
- International Advisory Committee of the IUPAC International Symposium on Functional and High Performance Polymers, Taipei, Taiwan, November 14-16, 1994
- NSF Workshop on Macromolecular Science and Engineering, Washington D.C., May 14-15, 1997
- First European Gordon Research Conference on Polymers, Chantilly, France, June 29-July 4, 1997 (Chair)
- Gordon Research Conference on Polymers, Henniker, NH, June 14-19, 1998 (Chair)
- International Symposium, "Synthesis of Novel Polymeric Materials," Anaheim, March 21-25, 1999 (Chair)
- International Symposium, "Precision Polymerizations and Controlled Supramolecular Architectures" Honolulu, Hawaii, December 14-19, 2000 (Chair)
- Scientific Committee, 18th International Liquid Crystal Conference, Sendai, Japan, July 24-28, 2000
- Scientific Committee, Europolymer Conference, Regular Macromolecular Structures Based on the Controlled Polymerization Processes, Gargnano, Italy, May 23-28, 1999.
- 36th International IUPAC Symposium on Macromolecules "World Polymer Congress" Warsaw-Lodz, Poland, July 9-14, 2000.
- Pacificchem 2000, Honolulu, Hawaii, December 14-19, 2000 (Chair)
- International Symposium Life Sciences and Materials, Italy (1999) and US (2001) (Chair)
- 40th International IUPAC Symposium on Macromolecules "World Polymer Congress" 2004, Paris, France
- 41st International IUPAC Symposium on Macromolecules "World Polymer Congress" 2006, Rio de Janeiro, Brazil
- 43rd IUPAC World Polymer Congress, Macro 2010, Glasgow, UK, 11-16 July, 2010

- 44th IUPAC World Polymer Congress, Macro 2012, Virginia Tech, Blacksburg, VA, USA, June 24-29, 2012
- Member International Organizing Committee, 13th Pacific Polymer Conference, Haohsiung, Taiwan, 2013
- International Organizing Committee, “World Congress on Living Polymerizations and Polymers.” (LPP16), Budapest, 2016
- Chair of the First International Symposium ”A Materials Genome Approach to Structure and Function.” ACS Meeting, Philadelphia, 2016
- Chair of the Second International Symposium ”A Materials Genome Approach to Structure and Function.” ACS Meeting, Boston, 2018
- Chair of the International Symposium “From Staudinger Macromolecules to the Genome of Macromolecules.” ACS Meeting, Philadelphia, 2020

Director

- Materials Research Science and Engineering Center (MRSEC) Sponsored by the National Science Foundation at CWRU, 1991-1998

Member of the Scientific Advisory Boards

- Bayer, 1988-1992; Symyx Technologies Inc (US) 1998-2015; LG Chem (Korea) 1999-2008; Henkel 2006-2018; Molecular Foundry and Lawrence Berkeley National Laboratory both at the University of California at Berkeley, 2005-2015; Shanghai Jiao Tong University, 2018-2023; Australian Institute for Bioengineering and Nanoscience of the University of Queensland, Brisbane, Australia 2009-2021;

Consultant

- For many chemical companies, including: DuPont Experimental Station, Central Research and Marshall Laboratories (1985-2012); B. F. Goodrich (1984-1997); Bayer (1988-1992); BASF (1990-2010), Goodyear (1988-1993); General Motors (1986-1988); Bausch & Lomb (1987-1989); Interez (1988-1989); Standard Oil (1983-1986); British Petroleum (1986-1999); National Starch (1991-1993); Amoco (1988-1991); Hoechst (1989-1993), LG Chem (1999-2008), Rohm and Haas (2007-2010), Henkel (2006-2018); CMS (2000-2018).

Faculty Awards from Private Foundations

- Amoco
- Asahi Chemical Co. (Japan)
- Unitika (Japan)
- Bausch and Lomb
- Toagosei (Japan)
- Bayer (Germany)
- BASF (Germany)

- BFG
- BP (UK)
- Colorite
- DuPont, Central Research
- Hercules Foundation
- Hoechst (Germany)
- Henkel
- Shanghai Jiao-Tong University Foundation
- Rohm and Haas
- Compact Membrane Systems (CMS)
- Kaneka (Japan)
- IBM
- Japan Synthetic Rubber Co. (Japan)
- Kao Foundation (Japan)
- Kimberly-Clark Corporation
- Toyota (Japan)
- Wellcome Foundation
- W. M. Keck Foundation

Refereed Publications, Books, Patents, Lectures

- 825 refereed publications; Editor of 20 Books and Special Journal Issues; 80 Patents; 1295 Endowed, Plenary and Invited Lectures

Graduate Students and Postdocs

- Educated over 350 graduate students and postdocs, more than 70 of them being University Professors

h-Factor

- h-factor: 129 (Google)
- Selected in “Global Highly Cited Researchers” List by Clarivate Analytics. This list recognizes world-class researchers for their exceptional research performance based on multiple highly cited papers that rank in the top 1% by citations for field and year in *Web of Science*. <https://clarivate.com/blog/news/global-highly-cited-researchers-2018-list-reveals-influential-scientific-researchers-and-their-institutions/>