Curriculum vitae

DONALD HILVERT

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Education

1978	B.A. in Chemistry and German, magna cum laude Brown University, Providence, Rhode Island
1979	Predoctoral Fellow Eidgenössische Technische Hochschule, Zurich, Switzerland
1983	Ph.D. in Organic Chemistry Columbia University, New York, New York
1984 - 1985	NIH Postdoctoral Fellow Rockefeller University, New York, New York

Professional Experience

1986 - 1989	Assistant Member, Department of Molecular Biology Research Institute of Scripps Clinic, La Jolla, California
1989 - 1994	Associate Member, Departments of Chemistry and Molecular Biology The Scripps Research Institute, La Jolla, California
1994 - 1997	Janet and W. Keith Kellogg II Professor of Chemistry The Scripps Research Institute, La Jolla, California
1996 - 1997	Affiliate, Skaggs Institute for Chemical Biology The Scripps Research Institute, La Jolla, California
1997 -	Professor, Department of Chemistry Swiss Federal Institute of Technology (ETH), Zurich, Switzerland

Service

Editor: *Current Opinion in Chemical Biology* (1998-2010)*;* Scientific Editor: *Chemical Communications (*The Royal Society of Chemistry, 2000-2006); Editorial Advisory Boards: *Accounts of Chemical Research* (American Chemical Society (2016-present); *Biochemistry (*American Chemical Society (2009-present); *Chemical Reviews*, American Chemical Society (1992-2017); *Protein Science,* Protein Society (1992-1996); *C&EN* (2011-2014); *Cell Chemistry Biology*, Cell Press (1993-present); *Bioorganic & Medicinal Chemistry* and *Bioorganic & Medicinal Chemistry Letters* (1996-present); *Journal of Molecular Catalysis* (1996-2000); *Bioorganic Chemistry* (1997-present); *Organic Letters,* (1999-2010); *ChemBioChem* (2000-2010; co-chair, 2010-present); *ChemCatChem* (2009-present); *Journal of Peptide Science* (2009-present); *Molecular Informatics* (2009-2017); Scientific Advisory Boards: Actelion Pharmaceuticals Ltd. (2000-2006); Selecore GmbH (2003-2005); Max Planck Institut für medizinische Forschung, Heidelberg (2003-2012); Global Bioenergies S.A. (2009-2017); Dean's Advisory Council, School of Pharmaceutical Science and Technology, Tianjin University (2013-2023). Board Member of the Swiss Chemical Society (2001-2007); President, Bürgenstock Conference on Stereochemistry (2008); Head, Laboratory of Organic Chemistry, ETH Zürich (2004-2005); Research Commission, ETH Zürich (2008-2013); Chairman, Department of Chemistry and Applied Biosciences, ETH Zürich (2014-2016); Executive Council, The Protein Society (2015-2023); Board of Trustees of the Gordon Research Conferences (2015-2021)

Honors and Awards

Phi Beta Kappa (1978); National Merit Scholarship (1974-78); Swiss Universities' Grant (1978-79); National Research Service Award (1980-81); NIH Postdoctoral Fellow (1983-85); Junior Faculty Research Award, American Cancer Society (1987-90); Faculty Research Award, American Cancer Society (1990-95); Visiting Professor, Laboratorium für Organische Chemie, ETH-Zürich, Switzerland (1991); Alfred P. Sloan Research Fellow (1991-93); Arthur C. Cope Scholar Award, American Chemical Society (1992); Fellow of the American Association for the Advancement of Science (1993); Pfizer Award in Enzyme Chemistry (1994); Fellow of the Royal Society of Chemistry (2004); The Emil Thomas Kaiser Award, The Protein Society (2009), Doctor of Philosophy honoris causis, Uppsala University (2011); Honorary Lifetime Membership of the Israel Chemical Society (2011); Goldene Eule & Credit Suisse Award for Best Teaching (2011); Feodor Lynen Medal, German Society for Biochemistry and Molecular Biology (2016); Biocat Award (2016); Fellow, American Academy of Arts and Sciences (2016); Moore Distinguished Scholar, Caltech (2019); Honorary Professor, Tianjin University (2019)

Named Lectureships

Merck Lecturer, Cambridge University (2001); Novo Nordisk Lecturer, Danish University of Pharmaceutical Sciences (2003); AstraZeneca Lecture, Sheffield University (2006); Bruno-Werdelmann-Vorlesung, Universität Duisburg-Essen (2008); Oppolzer Lecture, University of Geneva (2009); Eli Lilly Lecture, University of Illinois (2009); Hirschmann Lectureship, University of Wisconsin, Madison (2011); Abbott Lecture, Department of Chemistry, University of California, Berkeley (2012); Boehringer-Ingelheim Lecture, Department of Chemistry, University of British Columbia (2013); European Biophysical Societies' Association Lecturer, Leiden (2014); Novartis Lecture, Boston College (2014); Charles and Carolyn Knobler Lecturer, UCLA (2015); Ty Shen Lectures, MIT (2015); Stanley Dagley Lectureship, University of Minnesota (2015); Murray Goodman Endowed Lecture, University of California, San Diego (2016); Feodor Lynen Lecture, 67th Mosbacher Kolloquium (2016); GSK Lecture, University College Dublin (2017)

Research Interests

Enzymology • Enzyme Engineering • Molecular Evolution • Chemical Biology

Representative recent publications (out of 268 total)

1. S. Studer, D.A. Hansen, Z.L. Pianowski, P.R.E. Mittl, A. Debon, S.L. Guffy, B.S. Der, B. Kuhlman & D. Hilvert (2018). Evolution of a highly active and enantiospecific metalloenzyme from short peptides. *Science 362*, 1285-1288
2. T. Hayashi, M. Tinzl, T. Mori, U. Krengel, J. Proppe, J. Soetbeer, D. Klose, G. Jeschke, M. Reiher & D. Hilvert (2018). Capture and characterization of a reactive heme-carbenoid in an artificial metalloenzyme. *Nat. Catal. 1*, 578-584
3. N. Terasaka, Y. Azuma & D. Hilvert (2018). Laboratory evolution of virus-like nucleocapsids from non-viral protein cages. *Proc. Natl. Acad. Sci. USA 115*, 5432-5437.
4. D.L. Niquille, D.A. Hansen, T. Mori, D. Fercher, H. Kries & D. Hilvert (2018). Nonribosomal synthesis of backbone-modified peptides. *Nature Chem. 10,* 282-287.
5. R. Obexer,A. Godina, X. Garrabou, P.R.E. Mittl, D. Baker, A.D. Griffiths & D. Hilvert (2017). Emergence of a catalytic tetrad during evolution of a highly active artificial aldolase. *Nature Chem. 9*, 50-56.
6. Y. Azuma, R. Zschoche, M. Tinzl & D. Hilvert (2016). Quantitative packaging of active enzymes into a protein cage. *Angew. Chem. Int. Ed. 55*, 1531-1534
7. N. Preiswerk, T. Beck, J.D. Schulz, P. Milovníc, C. Mayer, J.B. Siegel, D. Baker & D. Hilvert (2014). Impact of scaffold rigidity on the design and evolution of an artificial Diels-Alderase. *Proc. Natl. Acad. Sci. USA 111,* 8013-8018.
8. R. Blomberg, H. Kries, D.M. Pinkas, P.R.E. Mittl, M.G. Grütter, H.K. Privett, S.L. Mayo & D. Hilvert (2013). Precision is essential for efficient catalysis in an evolved Kemp eliminase. *Nature 503,* 418-421.