



## CV

## Curriculum vitae: Michael L. Gross

**Present position:**

Professor of Chemistry, Medicine, and Immunology, Principal Investigator, NIH Mass Spectrometry Research Resource at Washington University  
 Editor, *J. Amer. Soc. Mass Spectrometry*, 1990–present  
 CoEditor– *Encyclopedia of Mass Spectrometry* (with R. Caprioli)

**Present address:**

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**Education:**

B.A. (*Cum Laude*) Chemistry, St. John's University (Minn.), 1962  
 Ph.D., Organic Chemistry, University of Minnesota, 1966 Dissertation Title: "Reactivity of Electron-Rich Aromatics"  
 Postdoctoral, University of Penn. (E.R. Thornton), 1966–1967 (one year)  
 Postdoctoral, Purdue University (F.W. McLafferty), 1967–1968 (one year)

**Appointments/Affiliations:**

Professor of Chemistry, Immunology, and Medicine, Washington University, 1994–  
 Principal Investigator, Washington University Research Resource in Mass Spectrometry, 1994–  
 Director, NSF Midwest Center for Mass Spectrometry, 1978–1994  
 C. Petrus Peterson Professor of Chemistry, University of Nebraska, 1988–1994  
 3M Alumni Professor of Chemistry, University of Nebraska, 1983–1988  
 Professor of Chemistry, University of Nebraska, 1978–1994  
 Assoc. Professor of Chemistry, University of Nebraska, 1972–1978  
 Ass't Professor of Chemistry, University of Nebraska, 1968–1972  
 Editor, *Mass Spectrometry Reviews*, 1982–1990

**Research interests:**

Development of Mass Spectrometry Methods (MS/MS and FTMS) for Structural Determination of Biomolecules and for Measuring Biophysical Properties of Proteins  
 Development of Fourier Transform Mass Spectrometry (FTMS) for Accurate Mass and Higher Performance  
 Elucidation of Gas-phase ion chemistry: Metal ion interactions, Distonic ions, Radical cations, Charge-Remote Fragmentations, Fragmentation of  
 Oligodeoxynucleotides, Gas-Phase Solution Analogies

**Honors, lectureships**

2008	Bruker Daltonics Lectureship	University of Konstanz, Germany
2008	Freiser Lectureship	Purdue University
2006	J.J. Thomson Medal for Service to Int'l MS	Foundation for International Mass Spectrometry
2005	Excellence in Mentoring Award	Washington University Grad. Student Senate
2005	New Jersey Distinguished Lectureship	NJ Section ACS Mass Spectrometry Discussion Group
2004	Outstanding Mentor Award	Washington University Grad. Student Senate
2002	Midwest Award for Achievements in Chem.	American Chemical Society
2002	Excellence in Mentoring Award	Washington University Grad. Student Senate
2001	Watkins Visiting Professor	Wichita State University
2001	Outstanding Mentor Award	Washington University Grad. Student Senate
2000	Frontiers in Chemistry Lectureship	Wayne State University
2000	Plenary Lecture	Vienna Mass Spectrometry Colloquium
2000	Plenary Lecture	EnviroAnalysis 2000
1999	Field and Franklin Award	American Chemical Society
1998	Plenary Lecture	Assoc. Official Anal. Chemists' Int'l Meeting
1998	Plenary Lecture	HPLC International Symposium
1997	Plenary Lecture	Colloquium Spectroscopicum Internationale
1997	Plenary Lecture	Igler MS Tage, Innsbruck
1996	Guest Faculty	NATO School on Biol. Mass Spectrometry
1995	Pioneers in Chemistry Series	Texas A&M University
1995	Plenary Lecture	Western Biotechnology Conference, San Diego
1995	Plenary Lecture	FDA Mass Spectrom. Symposium, Washington, DC
1994	Plenary Lecture	Australia/New Zealand MS Conference, Melbourne
1993	Guest Professor	NATO Adv. Study Inst. Biol. MS, Ischia, Italy

1993	Plenary Lecture	Colloquium Spectroscopicum Internationale
1993	Plenary Lecture	Taiwan Int'l Chemistry Conference
1993	Plenary Lecture	Indian Society for Mass Spectrometry
1993	Lifetime Member	Indian Society for Mass Spectrometry
1993	Kraft Lectureship	Indiana University
1992	Plenary Lecture	European Tandem Mass Spectrom. Conf.
1992	Recognized as 50 Most Cited Chemists	Institute for Scientific Information, 1984–1991
1991	Plenary Lecture	Australian Symposium on Analytical Chem.
1991	Plenary Lecture	Elsevier Anal. Advances for the 90s Symposium
1990	Van't Hoff Visiting Professor	Int'l Graduate School, University of Amsterdam
1990	Guest Professor	NATO Adv. Study Inst. in Biol. Mass Spectrometry
1988	Albright & Wilson Visiting Professor	University of Warwick
1988	Plenary Lecture	American Society for Mass Spectrometry
1987	Pioneer Award	Commonwealth of Mass "In Search for the Health Consequences of Dioxin in Our Environment."
1987	Hertel Lectureship	University of Tennessee
1987	Alan Maccoll Plenary Lectureship	British Society for Mass Spectrometry
1987	Plenary Lecture	British Royal Society "Spectroscopy Across Spectrum"
1986	J.C. Karcher Lectureship	University of Oklahoma
1986	Plenary Lecture	Versailles International Workshop on Ion-Molecule Rxns,
1984	Distinguished Lecture Series	Indiana University
1984	Plenary Lecture	Swiss/French Mass Spectrometry Conference
1984	Third Cycle Lectures	Eidgenössische Technische Hochschule Lausanne
1978	Amoco Teaching Medal	University of Nebraska-Lincoln

#### Advisory boards, conference and editorial boards

2010–2010	University of Georgia, Complex Carbohydrate Research Center	Member, Adv Brd
2007	University of Minnesota, Proteomics Center	Member, Review Panel
2004–2004	University of Illinois Center for Neuroproteomics	Member, Adv Brd
2004–2007	Indiana University, Center for Glycomics and Glycoproteomics	Member, Adv Brd
2002–2002	Harvard University Resource on Biological Imaging	Member, Adv Brd
2001	<i>International Journal of Mass Spectrometry</i> , Volume dedicated to NMM Nibbling	Volume Editor
2000–2000	Encyclopedia of Mass Spectrometry, Elsevier	Co-Editor
1999–2004	Advisory Board, NIEHS Toxicology Center at Vanderbilt University	Member
1997	15th Asilomar Conference on Mass Spectrometry	Organizer
1997	Int'l Organizing Committee, Symposia on MS in Biological and Health Sciences	Member
1995–1995	<i>International Journal of Mass Spectrometry</i>	Member, Editorial Brd
1995–1996	Asilomar Conference Committee of the American Society for MS	Chairman
1995	Pittsburgh Conf. Symp Future MS Approaches for Sturct Determination	Organizer
1994–1994	<i>Journal of Mass Spectrometry</i>	Member, Editorial Brd
1994–1996	<i>Chemical Research in Toxicology</i>	Member, Editorial Brd
1994	FACSS Symposium on Structure Elucidation by MS	Organizer
1993–1999	Asilomar Conference Committee of the American Society for MS	Member
1992	Int'l Organizing Committee, Kyoto Conference on Biological MS	Member
1990–1990	<i>Journal of the American Society for Mass Spectrometry</i>	Editor in Chief
1990–2005	<i>Mass Spectrometry Reviews</i>	Member, Editorial Brd
1990–1994	State of Nebraska EPSCoR Oversight Committee	Member
1990	NATO Adv Study Inst. on Biological MS	Scientific Director and Organizer
1987	6th Asilomar Conference on Mass Spectrometry	Organizer
1986–1994	<i>Analytical Chim. Acta</i>	Member, Editorial Brd
1986–1991	National Research Council, Board on Chemical Technology	Member
1986	NSF Oversight Committee	Member
1985–1988	NIH Metallobiochemistry Study Section	Member
1984–1990	IRB, St. Elizabeth, Lincoln General and Bryan Memorial Hospitals	Member
1983–1983	UCSF Research Resource in Mass Spectrometry Advisory Board	Member and Chairman
1982–1990	<i>Mass Spectrometry Reviews</i>	Editor in Chief
1982–1994	<i>Organic Mass Spectrometry</i>	Member, Editorial Brd
1982–1985	<i>Analytical Chemistry</i>	Member, Instrum. Panel
1982–1984	<i>International Journal of Mass Spectrometry and Ion Physics</i>	Member, Editorial Brd
1982–1990	Science Advisory Board, Michael F. Smith Health Care Center, Chicago	Member
1982	EAS Symposium on Anal of Polar or High MolWt Materials by MS	Organizer
1982	ASMS Workshop on Tandem MS	Organizer
1981–1994	Washington University NIH Research Resource in MS Advisory Board	Member
1981	ACS Symposium Honoring F.W. McLafferty	Organizer
1980–1981	US EPA Hearings to Suspend 2,4,5-T and Silvex	Chief Analytical Witness
1979	Dow Chemical Blue Ribbon Panel on Dioxins in Combustion	Member
1979–1982	US Gov't Dioxin Implementation Panel	Member
1977–1980	High Resolution and Organic Qual. Analysis Committees of the ASMS	Chairman
1972–1974	Nebraska Section of the American Chemical Society	Secretary and Chairman

#### Consultanships

Aventis (and MBHB Patent Law Firm, Chicago) (2004–)
Air Products (1990–)
Schering-Plough (now Merck) (1989–)
Eli Lilly (and MBHB Patent Law Firm, Chicago) (1997–2004)
Vinyl Institute (1996–2004)
Smith Kline Beecham (1997–1999)
Metaphore (1996–1998)
Pimentel Committee to Survey the Chemical Sciences (1983)
Union Carbide (1982–1987)
Midwest Research Institute (1982–1986)
New YorkState, Dept. of Law (1982–1985)
Board of Advisors, National Institutes of Environmental Health Sciences (1981, 1983)

National Bureau of Standards, Quality of Analytical Data on Love Canal Survey (1981–1982)  
U.S. Veterans Administration on the Question of Human Exposure to Agent Orange (1979–1980)  
U.S. Forest Service on the Question of Dioxin Uptake in Biological Tissue (1979–1980)  
Food and Drug Administration on Analysis Methods for TCDD (1979)  
U.S. Air Force on Various Questions on Agent Orange (1978–1980)  
State of Nebraska, Gasohol Committee (1972–1975)  
Ad hoc Consultant:

Merck, 2004  
IBM, San Jose Res. Center (1986)  
Proctor and Gamble (1985)  
Tennessee Eastman (1984 and 1988)  
Kratos Analytical Instruments (1984)  
3M (1983)  
Shell Oil, United Kingdom (1983), Netherlands (1987)  
Eastman Kodak (1981 and 1985)  
Exxon (1981 and 1986)  
Nicolet Instruments (1981)  
Chevron (1980)  
Hooker Chemical (1980)  
Waste Management (1980)  
Unico Japan (1978)  
Brunswick (1976)

**Professional and honorary memberships**

American Chemical Society  
American Society for Mass Spectrometry  
Phi Lambda Upsilon  
Indian Society for Mass Spectrometry (lifetime member)

**Appendix A. Supplementary data**

Supplementary data associated with this article can be found, in the online version, at [doi:10.1016/j.ijms.2011.01.012](https://doi.org/10.1016/j.ijms.2011.01.012).

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