

## 2014 Officers

### Council

President	Jeanette Killius	Directors	Alice Dohnalkova
President Elect	John Mansfield		Chris Kiely
Past President	Ernest Hall		Paul Kotula
Secretary	Ian M. Anderson		Frances M. Ross
Treasurer	Peter A. Crozier		Teresa Ruiz
			Bill Russin
			Mark A. Sanders
		Director, Local Affiliated Societies	Alice Dohnalkova

## Appointed Officers

Archives	Michael Marko	<i>Microscopy and Microanalysis</i>	
Awards Committee Chair	Frances M. Ross	Editor in Chief	Robert L. Price
Bylaws	Ernest Hall	Official Meeting Guide Editor	Richard E. Edelmann
Certification Board Chair	Pat Kysar	Official Program Guide Editor	Richard E. Edelmann
Education Committee Chair	David W. Tomlin	Proceedings Editor	John P. Shields
Fellowship Chair	John Mansfield		Gail J. Celio
Finance	Peter Crozier		
Focused Interest Groups		<i>Microscopy Today</i> Editor	Charles E. Lyman
Focused Interest Group Chair	Jim DiOrio		
Aberration-Corrected	David Muller	M&M Annual Meeting	
Electron Microscopy		Program Chair 2014	David C. Bell
Atom Probe Field Ion Microscopy	Richard L. Martens	Program Chair 2015	Mark A. Sanders
Biomaterials	<i>vacant</i>	Program Chair 2016	Joseph Michael
Cryopreparation	Caroline A. Miller	Program Chair 2017	Jay Potts
Diagnostic Microscopy	Michael Goheen	Nominating Committee Chair	Ernest Hall
Electron Crystallography and	Sergei Rouvimov	Placement Office	Pamela F. Lloyd
Automated Mapping Techniques		Publications Liaison	Jeanette Killius
Environmental TEM	Judith C. Yang	Sustaining Members Chair	Noel T. (Tom) Nuhfer
Facilities Management & Operations	Randy Nessler	Technologists' Forum	John P. Chandler
Focused Ion Beam	Brian Gorman	Association Management	Robert Dziuban
Pharmaceuticals	Andrew D. Vogt	Director	The Drohan Group
Information Technology	Nestor Zaluzec	Meeting Management	Nicole Guy, Conference Manager
International Committee Chair	Raynald Gauvin		
Membership Committee Chair	Bryan Majkrzak	Exhibition Management	Doreen Bonnema, Corcoran Expositions, Inc.

## MSA Sustaining Members

4D Technology Corporation	FEI Company	Micron, Inc.
Advanced MicroBeam, Inc.	GA Institute of Technology, Materials Science and Engineering	Mitutoyo America Corporation
Advanced Microscopy Techniques	Gatan, Inc.	NION Company
Angstrom Scientific Inc.	Grant Scientific Corp.	Olympus Soft Imaging Solutions – GMBH
Applied Physics Technologies, Inc.	Hitachi High Technologies America	Oxford Instruments, Inc.
Boeckeler Instruments, Inc.	HREM Research, Inc.	Protochips, Inc.
Bruker Nano Analytics	Hysitron, Inc.	PulseTor, LLC
CAMECA Instruments, Inc.	ibss Group, Inc.	ResAlta Research Technologies
Carl Zeiss Microscopy, LLC.	Integrated Dynamics Engineering	Scientific Instrumentation Services, Inc.
Carnegie Mellon University	Intl Centre for Diffraction Data	SEMTECH Solutions, Inc.
Chroma Technology Corp.	IXRF Systems, Inc.	SGX Sensortech (MA), Ltd.
Columbian Chemicals Co.	JEOL USA, Inc.	South Bay Technology, Inc.
Cornell University	Ladd Research Industries	SPI Supplies
Denton Vacuum, LLC	Lehigh Microscopy School	Technical Sales Solutions LLC
Diatome U.S.	Leica Microsystems, Inc.	Ted Pella Inc.
Duniway Stockroom Corp.	Mager Scientific, Inc.	Tescan USA Inc.
E.A. Fischione Instruments Inc.	Materials Analytical Services	Thermo Fisher Scientific Inc.
EDAX Inc	Micro Star Technologies, Inc.	Tousimis Research Corporation
Electron Microscopy Sciences		XEI Scientific, Inc.
EXpressLO LLC		

## MSA Outstanding Technologists' Awards

1993	Ben O. Spurlock	1999	John C. Wheatley	2007	Thomas Deerinck
1994	Bernard J. Kestel		John M. Basgen	2009	Lynne Gignac
1995	Kai Chien	2000	Nancy Crise Smith		Mary Morphew
1996	David W. Ackland	2001	Conrad G. Bremer	2010	E. Ann Ellis
1997	John P. Benedict	2002	José A. Mascorro	2011	Robert Grassucci
	Stanley J. Kepeis	2003	Edward A. Ryan	2012	Kunio Nagashima
1998	Charles J. Echer	2004	Mark C. Reuter	2013	Robyn Roth
	Hilton H. Molehauer	2005	Chris Nelson		K. Shawn Reeves
			John J. Bozzola		

## Morton D. Maser Distinguished Service Award

1992	Ronald Anderson	1993	E. Laurence Thurston	2003	M. Grace Burke
	G.W. Bailey	1994	Richard Crang	2004	Ralph Albrecht
	Frances Ball	1995	Raymond K. Hart	2005	W. Gray (Jay) Jerome
	Blair Bowers	1996	José Mascorro	2006	Jeanette Killius
	Deborah Clayton	1997	William T. Gunning III	2007	Robert L. Price
	Joseph Harb	1998	Nestor J. Zaluzec	2008	Stuart McKernan
	Kenneth Lawless	1999	Charles Lyman	2009	Pamela Lloyd
	Morton D. Maser	2000	Barbara A. Reine	2011	Janet Woodward
	Caroline Schooley		Hildegard H. Crowley	2012	Gina Sosinsky
	John H.L. Watson	2002	Beverly Maleeff	2013	Caroline Miller

### Albert Crewe Award

2012	Wu Zhou
2013	Lena Fitting-Kourkoutis

### George Palade Award

2012	Gabriel Lander
2013	Peng Ge

## DISTINGUISHED SCIENTIST AWARDS



### Biological Sciences

Wah Chiu

**Dr. Wah Chiu** is the Distinguished Service Professor of Biochemistry and Director of the National Center for Macromolecular Imaging at Baylor College of Medicine. He is the founding director of the Graduate Program in Structural and Computational Biology and Molecular Biophysics at Baylor College of Medicine. He received a Bachelor of Arts in Physics in 1969 and a Ph.D. in Biophysics in 1975 at the University of California, Berkeley. He was trained under the mentorship of Professor Robert M. Glaeser.

Dr. Chiu is a pioneer in methodology development for electron cryo-microscopy. His work has transformed single particle electron cryo-microscopy into a routine tool for the structural determination of macromolecular machines at near atomic resolution. Using his technologies, he has collaborated with many eminent scientists around the world.

Dr. Chiu has earned several honors including the elected member of the Academia Sinica, Taiwan in 2008, the United States National Academy of Sciences in 2012, and the Academy of Medicine, Engineering, and Science of Texas in 2013. He won the Distinguished Faculty Award from the Baylor College of Medicine Alumni Association in 2013. He is the awardee of the Honorary Doctorate of Philosophy, University of Helsinki, Finland in 2014.



### Physical Sciences

David J. Smith

**Dave Smith** is Regents' Professor of Physics at Arizona State University. He received his Ph.D. in Physics (1978) and D.Sc. (1988) from the University of Melbourne, Australia. He has served as Director, Cambridge University High Resolution Electron Microscope (1980 to 1984) and Director, ASU Center for High Resolution Electron Microscopy (1991 to 2006), and he was President, Microscopy Society of America (2009). He is the author/co-author of 20 book chapters and over 500 refereed journal publications, he is a Fellow of MSA, MRS, APS and IoP (U.K.), and Editor (Materials), *Microscopy and Microanalysis* (since 2004). His long-term research interests have centered on the development and applications of atomic-resolution electron microscopy, with recent interests in oxide/semiconductor heterostructures and magnetic thin films and nanostructures.



**Burton Medal Award**

Maria Varela

**Maria Varela** obtained her BS (1997) and PhD (2001) in Physics at the Complutense University, Madrid, Spain. She joined Oak Ridge National Laboratory as a Wigner Fellow in 2002 and has been a Research Staff Member in the Materials Science and Technology Division since 2004. In 2010 she also became a Professor at Complutense University of Madrid after being the recipient of an European Research Council Starting investigator Award. Her research experience includes thin film growth, transport properties and structural characterization by x ray diffraction and electron microscopy, specializing in aberration corrected scanning transmission electron microscopy and atomic resolution energy-loss spectroscopy. Her main research interests include a variety of topics related to magnetism and complex oxide nanosystems, thin films and superlattices, including high T<sub>c</sub> superconductors, colossal magnetoresistance materials, multiferroics, and other cutting edge materials.



**Morton D. Maser  
Distinguished Service Award**

Mike Marko

**Mike Marko** has been an electron microscopist for 41 years and an (E)MSA member for 34 years. A founding staff member of the HVEM lab (in 1976), and the NIH Biotechnological Resource (in 1981) he remains a Research Scientist at Wadsworth Center, in Albany, NY, where he is currently manager of the “3D-EM Facility”. He is currently pursuing two instrument-development projects (cryo-FIB preparation for cryo-TEM; TEM phase-plate imaging).

For MSA, he has organized M&M symposia since 2001. He has been Archivist since 2002 and has served on the Awards, Education, Nominating, and Program Committees. He was Program Chair for M&M 2007. He has organized the M&M Sunday Short courses and In-Week Workshops since 2008. He served on Council from 2009 to 2011. He is also a founding member, past Secretary and past President of the Capital District Microscopy and Microanalysis Society.



**Albert Crewe Award**

Jinwoo Huang

**Jinwoo Hwang** received his Ph.D. from the University of Wisconsin, Madison in 2011. He is currently a postdoctoral researcher at the University of California, Santa Barbara. His research interests include advanced structural characterization of materials, S/TEM technique development, and computational materials modeling. In particular, he has developed novel S/TEM techniques and simulation methods based on electron nanodiffraction and quantitative imaging, for nanostructured materials, oxide heterostructures, and non-crystalline materials. For his contributions to the field, he has received several honors and awards, including a best postdoctoral paper award from the Microscopy and Microanalysis Society in 2013.



**George Palade Award**

Ricardo Guerrero-Ferreira

**Ricardo Guerrero-Ferreira** is a postdoctoral scientist in the Laboratory of Structural Biology and Biophysics at the *École Polytechnique Fédérale de Lausanne* (EPFL) in Switzerland. I received my B.Sc. from *Universidad del Atlántico* in Barranquilla, Colombia in 1999 and my PhD from New Mexico State University in 2008. During my PhD I worked with Dr. Michele K. Nishiguchi on the ecology, evolutionary biology and structural biology of marine symbiotic bacteria. I was a postdoctoral researcher at the laboratory of Dr. Elizabeth Wright at Emory University where I investigated bacteria-bacteriophage interaction using cryo-electron microscopy and cryo-electron tomography, as well as the application of Zernike phase-contrast cryo-electron tomography to study the ultrastructure of whole bacterial cells. I joined the laboratory of Dr. Petr Leiman at EPFL in 2013 to study the structure of the adsorption apparatus of bacteriophages and their structural modifications during infection using single particle analysis and cryo-electron tomography



**Hildegard H. Crowley  
Outstanding Technologist  
Award for Biological  
Sciences**

Hong Yi

**Hong Yi** is the technical director of the Robert P. Apkarian Integrated Electron Microscopy Core at Emory University. She holds a Masters Degree from Iowa State University where she received extensive education and training in electron microscopy under Dr. Jack Horner. She then worked in the Center for Electron Microscopy Research at the University of Iowa.

Hong's main interest is in the area of biological immunoelectron microscopy. She was one of pioneers in the application of ultrasmall gold conjugates in pre-embedding immuno-gold labeling. She later developed a double pre-embedding immuno-gold labeling method that incorporated two ultrasmall gold conjugates. She has also been active in teaching immunoelectron microscopy. To extend the applicability of labeling methods, Hong has also been involved in developing the technology of self-pressurized rapid freezing (SPRF) of biological materials. Currently, Hong is establishing methods for native immuno-gold labeling for cryo-electron microscopy and cryo-electron tomography applications.



**Chuck Fiori Outstanding  
Technologist for Physical  
Sciences**

Eddy Garcia-Meitin

**Eddy I. Garcia-Meitin** is a Technologist Leader for the Macromolecular Characterization group of Analytical Sciences at the Dow Chemical Company. He specializes in morphological characterization of polymers with a focus on failure analyses utilizing optical, transmission and scanning electron microscopies. He enjoys working across multiple business functions and applies an interdisciplinary approach to problem solving and new product development. During his 35 year career at Dow, Garcia-Meitin has familiarized himself with many different chemical product families including polyethylene, polypropylene, polyurethane, polyolefin elastomers, toughened epoxies and nanocomposite-hybrid materials. Garcia-Meitin was the recipient of the 2005 ACS National Chemical Technician Award. He has co-authored over 40 external publications, chapters in three polymer toughening handbooks and is co-inventor on 9 US patents. He and his wife Cindy have three daughters and reside in Angleton, Texas

## MSA Fellows

### 2009

Adrian, Marc	Fawcett, Don W.	Joy, David C.	Revel, Jean-Paul	Swann, Peter R.
Anderson, Ron	Frank, Joachim	Karnovsky, Morris J.	Rose, Harald	Thomas, Gareth
Bentley, James	Glaeser, Robert M.	Klug, Aaron	Schmitt, F.O.	Tokuyasu, Kiyoteru
Burke, Mary Grace	Glauert, Audrey M.	Krivanek, Ondrej L.	Schooley, Caroline	Unwin, Nigel
Carpenter, Ray W.	Hart, Raymond Kenneth	Ledbetter, Myron C.	Shimizu, Ryuichi	Wall, Joseph S.
Carter, C. Barry	Hashimoto, Hatsujiri	McMullan, Dennis	Silcox, John	Wells, Oliver
Crewe, Albert V.	Henderson, Richard	Michael, Joseph	Sinclair, Robert	Whelan, Michael J.
De Graef, Marc	Hirsch, Peter B.	Richard	Singer, S.J.	Zaluzec, Nestor J.
Dravid, Vinayak, P.	Howie, Archibald	Miller, Sara Elizabeth	Sjostrand, Fritiof	Zeitler, Elmar
Dubochet, Jacques	Huxley, Hugh E.	Mitchell, Terrence E.	Smith, Kenneth C.A.	Zhu, Yimei
Echlin, Patrick	Ichinokawa, Takeo	Mulvey, Thomas	Somlyo, Avril V.	
Egerton, Raymond F.	Iijima, Sumio	Newbury, Dale E.	Spence, John C.H.	
Farquhar, Marilyn G.	Inoue, Shinya	Rempfer, Gertrude	Steven, Alisdair	

### 2010

Ralph M. Albrecht	E. Ann Ellis	Michael K. Miller	John P. Petrali
Lawrence F. Allard	Joseph I. Goldstein	George Pappas	Zhong L. Wang
Kenneth H. Downing	Michael Isaacson	Stephen J. Pennycook	David B. Williams

### 2011

P.E. Batson	B.J. Griffin	R.E. Leapman	G. Perry
P.G. Calarco	W.T. Gunning III	C.E. Lyman	R.B. Simmons
P.A. Crozier	W.G. Jerome	M.A. O'Keefe	J.H. Woodward
J.A. Eades			

### 2012

U. Dahmen	W. Landis	R. Price	D. Sherman
M. Goldstein	J. Liu	F. Ross	N. Yao
M. Kim	B. Maleeff	D. Seidman	

### 2013

N. Browning	M. Radermacher
H. Fraser	D. Smith
D. Muller	E. Stach

### 2014

G. Botton	L.A. Giannuzzi	M. McCartney
A. Datye	T. Kelly	X. Pan
M. Gajdardziska-Josifovska	J. Mansfield	D. Piston

## Past Award Winners

### MSA Distinguished Scientist Awards

#### Biological Sciences

1975 Keith Porter  
 1976 L.L. Marton  
 1977 Robley C. Williams  
 1978 Thomas Anderson  
 1979 Daniel C. Pease  
 1980 George E. Palade  
 1981 Sanford L. Palav  
 1982 Richard M. Eakin  
 1983 Hans Ris  
 1984 Cecil E. Hall  
 1985 Gaston Dupouy  
 1986 F.O. Schmitt  
 1987 Marilyn G. Farquar  
 1988 Morris J Karnovsky  
 1989 Don W. Fawcett  
 1990 Audrey M. Glauert  
 1991 Hugh E. Huxley  
 1992 Fritiof Sjöstrand  
 1993 Jean-Paul Revel  
 1994 Andrew P. Somlyo  
 1995 Shinya Inoue  
 1996 Myron C. Ledbetter  
 1997 S. J. Singer  
 1998 Avril V. Somlyo  
 1999 Sir Aaron Klug  
 2000 K. Tokuyasu  
 2001 Patrick Echlin  
 2002 Marc Adrian  
 2003 Joachim Frank  
 2004 Robert M. Glaeser  
 2005 Richard Henderson  
 2006 Joseph S. Wall  
 2007 Nigel Unwin  
 2008 Alasdair Steven  
 2009 Jacques Dubochet  
 2010 George Pappas  
 2011 Ueli Aebi  
 2012 Tim Baker  
 2013 David DeRosier

#### Physical Sciences

Robert Heidenreich  
 Albert Crewe  
 James Hillier  
 Vernon E. Cosslett  
 John M. Cowley  
 Gareth Thomas  
 Vladimir K. Zworykin  
 Benjamin M. Siegel  
 Otto Scherzer  
 Sir Charles Oatley  
 Ernst Ruska  
 Peter Hirsch  
 Jan B. LePoole  
 Hatsujiro Hashimoto  
 Elmar Zeitler  
 Gertrude F. Rempfer  
 Archie Howie  
 Oliver C. Wells  
 Kenneth C.A. Smith  
 Dennis McMullan  
 David B. Wittry  
 John Silcox  
 Peter R. Swann  
 Michael J. Whelan  
 Takeo Ichinokawa  
 S. Amelinckx  
 Thomas Mulvey  
 Ryuichi Shimizu  
 Harald Rose  
 Raymond F. Egerton  
 Sumio Iijima  
 John C.H. Spence  
 Terence E. Mitchell  
 Ondrej L. Krivanek  
 Robert Sinclair  
 Michael Isaakson  
 Hannes Lichte  
 Ulrich Dahmen  
 C. Barry Carter

### MSA Burton Medal

1975 James Lake  
 1976 Michael S. Isaakson  
 1977 David D. Joy  
 1978 Robert Sinclair  
 1979 Norton B. Gilula  
 1980 John C.H. Spence  
 1981 Barbara J. Panessa-Warren  
 1982 Nestor J. Zaluzec  
 1983 Ronald Gronsky  
 1984 David B. Williams  
 1985 Richard D. Leapman  
 1986 J. Murray Gibson  
 1987 Ron A. Milligan  
 1988 A.D. Romig, Jr.  
 1989 Laurence D. Marks  
 1990 W. Mason Skiff  
 1991 Joseph R. Michael  
 1992 Kannan M. Krishnan  
 1993 Joseph A.N. Zasadzinski  
 1994 Jan M. Chabala  
 1995 Joanna L. Batstone  
 1996 Vinayak P. Dravid  
 1997 P.M. Ajayan  
 1998 Ian M. Anderson  
 1999 Zhong Lin Wang  
 2000 Eva Nogales  
 2001 Jian Min Zuo  
 2002 Nigel D. Browning  
 2003 Frances M. Ross  
 2004 Z. Hong Zhou  
 2005 David J. Larson  
 2006 David A. Muller  
 2007 Peter D. Nellist  
 2008 Steven J. Ludtke  
 2009 Eric Stach  
 2010 Sergei Kalinin  
 2011 Radostin Daney  
 2012 David Ginger  
 2013 John L. Rubinstein