

POSITIONS:

Distinguished University Professor
Department of Cell & Cancer Biology

Ombudsman

University of Toledo College of Medicine and Life Sciences

PLACE OF BIRTH:

Loughrea, Co. Galway, Ireland

PARENTS:

John and Annie Manning, National School Teachers
Drim National School, Drim, Loughrea and
Danesfort National School, Danesfort, Loughrea

SIBLINGS:

Justin Manning, B.E., M.A., Galway City, Ireland
Helene Lafferty, N.T., B.A., Lisdoonvarna, Co. Clare, Ireland
Monica McNamara, R.N., Ganty, Craughwell, Co. Galway,
Ireland
Claire Manning, Loughrea, Co. Galway, Ireland
Lou Manning, B.A., M.Ed., Toronto, Ontario, Canada
Gary Manning, Niagara Falls, Ontario, Canada

MARITAL STATUS:

Married to Carmel Walsh, R.N., B.Ed.

CHILDREN:

Shane J. Manning, Columbus, OH
Deirdre Manning, B.A., M. Div., MSW, Toledo, OH
Brian Manning, B.A., M.A., Los Angeles, CA

CITIZENSHIP:

United States

PROFESSIONAL ADDRESS:

University of Toledo College of Medicine and Life Sciences
Department of Cell & Cancer Biology
3000 Arlington Avenue – MS 1010
Block Health Science Building, Room 428
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HOME ADDRESS:

2143 Bridlewood Drive, Toledo, OH 43614, (419) 866-6407

EDUCATION:

Elementary School; Saint Brendan's Boys National School, Loughrea, County Galway, Ireland
High School; De La Salle Brothers Secondary School, Loughrea, County Galway, Ireland

Degree	Institution	Date
B.Sc. (1st Honors) Chemistry	University College Galway*, Galway, Ireland	1957
M.Sc. Chemistry ^a	University College Galway*, Galway, Ireland	1958
Ph.D. Organic Chemistry ^b	University of London, London, England	1961
D.Sc. Peptide Chemistry	University College Galway*, Galway, Ireland	1974

*Now named: University of Galway

^aMentor: Professor P.F. O'Colla; ^bMentor: Dr. I.L. Finar

PROFESSIONAL EXPERIENCE:

Years	Employer	Position
2009-	Univ. of Toledo College of Medicine & Life Sciences	Distinguished University Professor
1973-09	Medical College of Ohio at Toledo ^{**+}	Professor, Biochemistry and Cancer Biology
1969-73	Medical College of Ohio at Toledo ^{**+}	Associate Professor, Biochemistry
1965-69	McGill University, Montreal	Assistant Professor, Biochemistry
1964-65	Rockefeller University, NY	Research Associate ^c
1961-64	Cornell University Medical College, NY	Research Associate ^d

^{**}Renamed "Medical University of Ohio", June 2005: ⁺merged with the University of Toledo, July 1, 2006

^c With Dr. D.W. Woolley (to learn solid phase method of peptide synthesis from Dr. Bruce Merrifield (1984 Nobel Laureate).

^d With 1955 Nobel Laureate Dr. Vincent duVigneaud (to learn classical methods of peptide synthesis).

PROFESSIONAL SERVICE:

Local

President Faculty Senate, Medical College of Ohio (1973-1977).

Faculty Delegate Mid-West Great Plains Section of AAMC, MCO (1973-1977).

Member Search Committee for Dean, MCO (1973-1974); (1984-1985).

Member Curriculum Sub-Committees, MCO (1969-1975).

Member Appointments, Promotions and Tenure Committee, MCO (1978-1985) (1994-1996), 1999-2001.

Chairman Appointments, Promotions and Tenure Committee, MCO (1985-1987).

Member Student Promotions Committee (1981-1987).

Member Traffic and Parking Commission (1982-1985).

Member Tenure Committee, MCO (1988-1990).

Member Strategic Planning Committee, MCO (1989-1991).

Member Search Committee for Chair of Department of Physiology and Biophysics (1990-1992).

President, Toledo Torch Club (1993-1994).

Member Research Resources Committee, MCO (1992-1998).

Member Presidential Search Committee, MCO (1992-1993).

Chairman, Search Committee for Chair of Pharmacology Department, MCO (1996).

Member, Search Committee for Chair of Biochemistry (1997-1998).

Chairman, Honorary Degree Committee (1999-2005).

Member Patent Committee (1997-).
Member Curriculum Committee (Executive Curriculum Committee) (2006-2019).
Member, Search Committee for Dean, College of Arts and Science, UT (2007).
Ombudsman, UT College of Medicine and Life Sciences (2013-).
Member, Medical Research Society, UT College of Medicine and Life Sciences (2016-)

Faculty Advisor UTCOM Student Organizations

UT Health Science Campus (UTHSC) Soccer Club 2008-present
UTHSC: Charity Golf Scramble 2009-2014
UTHSC Music Therapy Club (Docapella and Vocal Remedy) 2011-present

Master of Ceremonies Medical Student Council Talent Shows at UT Recital Hall

2009: February 20: “Med Students do the Darndest Things”, Proceeds to “Make a Wish Foundation”
2010: February 19: “The UTCOM Carnival of Medical Oddities”, Proceeds to “Camp Courageous”
2011: February 18: “The Real Med Students of UTCOM”, Proceeds to “The Alliance for Paired Donations”
2012: March 16: “UTCOM’S Got Talent”. Proceeds to “The Alliance for Paired Donations”
2013: March 1: “UT’s Got Talent”, Proceeds to “The Alliance for Paired Donations”
2014: March 28: “UT’s Got Talent”, Proceeds to “UT Community Care Clinics”
2015: April 3: “The Talent Show”, Proceeds to “UT Community Care Clinics”
2016: April 1: “UT’s Got Talent”, Proceeds to Cherry Street Mission
2017: March 10: “UT’s Got Talent”, **Doermann Theatre**, Proceeds to Dr. Cyrus Chen, MD Legacy Scholarship
2018: March 9: “UT’s Got Talent”, **Doermann Theater**, Proceeds to Dr. Cyrus Chan, MD Legacy Scholarship
2019: January 31: “UT’s Got Talent”, **Doermann Theater**, Proceeds to Dr. Cyrus Chan, MD Legacy Scholarship
2019: November 16: “UT’s Got Talent”, **Doermann Theater**, Proceeds to Dr. Cyrus Chan, MD Legacy Scholarship

National and International

Member NIH Special Study Section (Reproductive Biology) December, 1975.
Chairman NIH Review Panel (Contraceptive Development Branch) March, 1976, 1980.
Member NIH Site Visiting Team for Program Project (Pharmacology/Toxicology), June, 1978.
Member NIH Ad Hoc Study Section (Med. Chem. A) (1978-1981).
Co-Chairman 3rd Gordon Conference on the Chemistry and Biology of Peptides, Santa Barbara, California, February 4-8, 1980.
Member of Planning Committee, American Peptide Symposium (1987-1990).
Member Program Committee, Second International Conference on Vasopressin, Smuggler's Notch, VT, August 1987.
Member NIH Site Visiting Team (Hematology S.S.) Salk Institute, La Jolla, CA, July 1988.
Member NIH Study Section [Bio-Organic and Natural Products Chemistry (BNP)] (1988-1992).
Member Program Committee, Third International Conference on Vasopressin, Montpellier, France, August 1990.
Founding Councilor, American Peptide Society (1990-1993).
Member NIH (NIDDK/RB) Program Project Site Visiting Team, Salk Institute, La Jolla, CA, December, 1994.
Member International Advisory Committee: Oxytocin Symposium, Stade, Germany, May, 1995.
Member Program Committee, American Peptide Symposium, Columbus, OH, June, 1995.
Member Scientific Committee, First World Joint Congress of Neurohypophysis and Vasopressin, Nasu, Tochigi, Japan, July, 1995.
Member, International Advisory Board, World Congress of Neurohypophysial Hormones (3rd WCNH), Edinburgh, Scotland, August 28-September 2, 1999.

Member, International Advisory Committee, World Congress of Neurohypophysial Hormones (5th WCNH), Kyoto, Japan, August 31-September 4, 2003.
Member, International Advisory Committee, World Congress of Neurohypophysial Hormones (8th WCNH, 2009), Kitakyushu, Japan, September 8-12, 2009.
Member, International Committee, World Congress on Neurohypophysial Hormones (9th WCNH), Boston, MA, July 27-30, 2011, Northeastern University
Member, FASEB Board of Directors; Representing The American Peptide Society, 2011-2015
Member, International Committee 10th World Congress on Neurohypophysial Hormones (WCNH 2013), Bristol, England, July 15-19, 2013
Member, International Committee 11th World Congress on Neurohypophysial Hormones (WCNH 2015), Queensland, New Zealand, Aug. 29-Sept. 1.
Chairman, Nominating Committee American Peptide Society, 2015
Member, International Committee, 12th World Congress on Neurohypophysial Hormones (WCNH 2017), Mangaratiba-Rio de Janeiro, Brazil, July 26-29, 2017
Chair: Symposium 7: "Views and Perspectives on the Peripheral Effects of Vasopressin", 12th World Congress on Neurohypophysial Hormones (WCNH 2017), Mangaratiba-Rio de Janeiro, Brazil, July 29, 2017
Member, Scientific Advisory Board, 35th EPS (European Peptide Symposium), Dublin City University, Ireland, Aug. 25-31, 2018
Chair, Symposium S3: "Neuropharmacology of Vasopressin and Oxytocin: Physiology and Behavior", 22nd RegPep2018, Acapulco, Mexico, Sept. 22-25, 2018.
Member, International Committee, 13th World Congress on Neurohypophysial Hormones (13th WCNH 2019), Ein Gedi Resort, Ein Gedi, Israel, April 8-11, 2019.
Member, International Committee, 14th World Congress on Neurohypophysial Hormones (14th WCNH 2024), Atlanta, GA

PROFESSIONAL SOCIETIES:

American Society for Biochemistry and Molecular Biology
American Peptide Society
European Peptide Society
American Chemical Society
New York Academy of Sciences
Torch Club International
International Regulatory Peptide Society

AWARDS:

Teaching Awards: Medical College of Ohio, Toledo (Renamed: Medical University of Ohio, June 2005)
(Renamed: University of Toledo College of Medicine, July 1, 2006)

"Hooding" of Medical Students at Graduation Ceremonies - **1987, 1988, 1989**

Dean's Award for Teaching Excellence - 1992

Golden Apple Award: Awarded for excellence in teaching by members of the Graduating Medical Student Class for each of the following years:

1973, 1975, 1979

1982, 1987, 1988, 1989

2002, 2005, 2007, 2009, 2010, 2011

Research Awards:

- 1957 **Hygia Ltd., Galway, Scholarship;** to pursue graduate studies in Carbohydrate Chemistry with Professor Frank Coll at University College Galway, Galway, Ireland.
- 1958 **Studentship to pursue Ph.D.** (University of London) in Organic Chemistry with Dr. I.L. Finar at the Northern Polytechnic, London, England.
- 1961 **Fulbright Travel Grant.** To join Nobel Laureate Dr. Vincent du Vigneaud as a research associate at Cornell Medical College, New York, New York.
- 1985 **Medal of Recognition, University of Gdansk, Gdansk, Poland.**
- 1987 **Doctor of Science, *honoris causa*, University of Gdansk, Gdansk, Poland.**
- 1994 **Sidney H. Ingbar Distinguished Service Award** of The Endocrine Society, USA.
- 1995 **Dr. Frederik Paulsen Honorary Lecture:** Hanseatic Endocrine Conference on Oxytocin, Stade, Germany.
- 1995 **Award Lecture:** First Joint World Congress of Neurohypophysis and Vasopressin, Nasu, Tochigi, Japan
- 1999 **MCO Research Career Achievement Award**
- 2003 **National University of Ireland, Galway; 2002 Alumni Award; Medtronic AVE Award for Health Care and Medical Science**
- 2008 **Distinguished University Professor, University of Toledo**
- 2009 **Grand Marshall, University of Toledo College of Medicine, Commencement, June 5, 2009**
- 2010 **Alpha Omega Alpha (AOA) Honor Medical Society, Faculty Inductee, March 24, 2010**
- 2010 **Meienhofer Award, Roche Colorado Corp. Peptide Symposium, September 15, 2010**
- 2016 **Amie Litzinger Legacy Lecture, November 29, 2016**
- 2017 **Grand Rounds, Dept. of Medicine, March 9, 2017 – Reprise of Amie Litzinger Legacy Lecture**
- 2017 **University Gdansk, Poland, September 1, 2017 – Ceremony to commemorate the 30th anniversary of the awarding of the title of Doctor Honoris Causa in 1987 and to celebrate my 80th birthday with many of the visiting scientists (listed on page 6) to my laboratory from Poland and Bulgaria.**
- 2017 **Honorary Guest of the 24th Polish Peptide Symposium, Jastrzebia Gora, September 3-7, 2017: Invited Oral Presentation “The Confluence of Chance Encounters, Collaborations, the Merrifield Solid Phase Method and Visiting Scientists in the Design and Synthesis of Oxytocin and Vasopressin Agonists and Antagonists”**

- 2019 **13th World Congress on Neurohypophysial Hormones, Ein Gedi, Israel, April 8-11,**
 “Lifetime Achievement Award” for Contributions to the Field of Neurohypophysial
 Hormones
- 2019 **International Regulatory Peptide Society (IRPS), Distinguished Member**
- 2022 Elected Trustee of **International Regulatory Peptide Society**

MAJOR RESEARCH FIELDS:

Solid Phase Peptide Synthesis

Design and Synthesis of Receptor Specific Agonists and Antagonists of Oxytocin and Vasopressin for Use
as (a) Research Tools and (b) Potential Therapeutic Agents.

Design of Specific Radioligands and Fluorescent Ligands for Oxytocin and Vasopressin Receptors

Design of Long Acting Oxytocin Agonists as Possible Research Tools
and Therapeutic Agents for the Treatment of Autism Spectrum Disorders (ASD) and Related Disorders.

Research Support

33 years continuous NIH Funding

Most Recent Support: NIH Grant 2RO1-GM25280-30-33

“Agonists and Antagonists of Vasopressin and Oxytocin”

December 1, 2002 – November 30, 2008

Direct Costs = \$1,000,000

Indirect Costs = \$309,260

Total = \$1,309,260

Active

PI: Maurice Manning, Ph.D., D.Sc.

Private Gifts to The University of Toledo Foundation for my Research

Total: \$100,000

Co-Workers: 1969-2017

1967-1969: McGill University, Montreal, Canada

T. C. Wu, Ph.D. – During and following graduate work with Murray Saffran, Ph.D.

J.W.M. Baxter, M.Sc., M.D. – Graduate Student before entry to Medical School

Karen Morton, B.Sc. – Summer Student

Victor Smart-Abbey, B.Sc., M.D. – Summer Student

1969-1973: MCO

Esther Coy, B.Sc., Research Technician - England

Jacqueline Judd, B.Sc., Research Technician - USA

John Lowbridge, Ph.D., Research Associate - University of Exeter, England

1972-2017: MCO, MUO, UTCOM Visiting Scientists

Lajos Balaspiri, Ph.D., D.Sc. – University of Szeged, Hungary
Krzysztof Bankowski, Ph.D. – University of Warsaw, Poland*
Andras Turan, Ph.D. – Gideon Richter Company, Budapest, Hungary
Marian Kruszynski, Ph.D., D.Sc. – University of Gdansk, Poland
Bernard Lammek, Ph.D., D.Sc. – University of Gdansk, Poland
Zbigniew Grzonka, Ph.D., D.Sc. – University of Gdansk, Poland
Aleksander Kolodziejczyk, Ph.D., D.Sc. – Technical University of Gdansk, Poland
Aleksandra Olma, Ph.D., D.Sc. – Technical University of Lodz, Poland*
Wieslaw Klis, Ph.D. – University of Wroclaw, Poland
Eleonora Nawrocka, Ph.D. – University of Wroclaw, Poland
Aleksandra Misicka, Ph.D., D.Sc. – University of Warsaw, Poland*
Josef Przybylski, Ph.D., D.Sc. – University of Gdansk, Poland
Aleksandra Kolodziejczyk, Ph.D., D.Sc. – University of Gdansk, Poland
Stoytcho Stoev, Ph.D. – Bulgarian Academy of Sciences, Sofia, Bulgaria^o*
Svetlana Pancheva, Ph.D. - Bulgarian Academy of Sciences, Blagoevgrad, Bulgaria
Krasimira Miteva, Ph.D. - Bulgarian Academy of Sciences, Blagoevgrad, Bulgaria
Ling Ling Cheng, Ph.D. – Institute of Organic Chemistry, Shanghai, China

2015-2016: UTCOM&LS MSBS Graduate Student, Olivia Burton

^oLater Permanent Co-worker

*Returned as Visiting Scholar for Short Visits in 2009-2017

Secretarial Support: Ms. Anna Chlebowski

Ms. Jenny Zak

Collaborators: 1967-2023

New York, NY, USA

Dr. Wilbur H. Sawyer, College of Physicians and Surgeons, Columbia University

Dr. W.Y. Chan, Dr. Hazel Szeto and ⁺Ms. Becky Wo, Cornell University Medical College

⁺Bioassay Expert with Drs. Sawyer, Chan and Szeto

Montpellier, France

Dr. Serge Jard, Dr. Claude Barberis, Dr. Gilles Guillon, Dr. Bernard Mouillac, Dr. Thierry Durroux,
Dr. Maithe Corbani, INSERM, Institut de Génomique Fonctionnelle, UMR5203-CNRS, U661-INSERM,
Université Montpellier I & II, Montpellier, France

Switzerland

Dr. Eliane Tribollet, Dr. Jean Jacque Dreifuss, University of Geneva, Switzerland

Italy

Dr. Bice Chini, CNR Institute of Neuroscience, Milan

Dr. Marta Busnelli, CNR Institute of Neuroscience, Milan

SOME INVITATIONS TO NATIONAL AND INTERNATIONAL

SCIENTIFIC MEETINGS AS SYMPOSIUM SPEAKER

1. FASEB Meetings, Anaheim, CA, April 8-14, 1976 in Symposium on "Comparative Cellular and Pharmacological Actions of Neurohypophyseal Hormones on Smooth Muscle". Title: "Design of Neurohypophysial Peptides Which Exhibit Selective Agonistic and Antagonistic Properties".
2. 2nd International Conference on the Neurohypophysis, Key Biscayne, Florida, November 14-19, 1976. Title: "Structure-Activity Studies on Oxytocin and Vasopressin 1954-1976; from Empiricism to Design".
3. ACS National Meeting, New York, August 23-28, 1981 in Smissman Award Symposium. Title: "The Design of Antagonists of In Vivo Responses to Oxytocin and Arginine Vasopressin".
4. Gordon Research Conference, Ventura, CA, February 8-12, 1982 on "The Cardiovascular Role of Brain Angiotensin and Other Peptide Hormones". Title: "Antagonists to Vasopressin".
5. 3rd International Conference on the Neurohypophysis, Babraham, Cambridge, England, September 13-16, 1982. Title: "Design of Potent and Selective In Vivo Antagonists of the Neurohypophysial Peptides".
6. XXIXTH International Congress of the International Union of Physiological Sciences, Sydney, Australia, August 28 - September 3, 1983 in Symposium on "Local Mechanisms Controlling Blood Flow". Title: "Design of Potent Antagonists of the Vascular and Renal Tubular Responses to Arginine Vasopressin.
7. Gordon Research Conference, Santa Barbara, CA, February 5-10, 1984 on "Chemistry and Biology of Peptides" in Session on "Hormone Inhibitors". Title: "Design, Synthesis and Some Biological Uses of Antagonists of Oxytocin and Vasopressin.
8. 18th European Peptide Symposium, Djuronaset, Sweden, June 10-15, 1984. Title: "Design and Synthesis of Antagonists of Vasopressin Possessing Enhanced Antiantidiuretic Potencies and/or Selectivities".
9. 1st International Conference on Vasopressin, Aspen, Colorado, August 19-25, 1984 in Session on Antagonists of Vasopressin. Title: "The development of Selective Agonists and Antagonists of Vasopressin and Oxytocin".
10. Swiss Hypertension Workshop on Vasopressin, Montreux, October 10-12, 1985. Title: "Synthesis and Receptor Specificities of Vasopressin Antagonists".

11. 9th American Peptide Symposium, Toronto, Ontario, Canada, June 23-28, 1985. Title: "Studies Leading to Orally Active Antagonists of the Antidiuretic (V₂) and Vasopressor (V₁) responses to Arginine Vasopressin (AVP)".
12. 19th European Peptide Symposium, Porto Carras, Chalkidiki, Greece, August 31-September 5, 1986. Title: "Surprising Findings with Some Deletion Modified Selective V₂ Antagonists of Arginine Vasopressin (AVP)".
13. 50th Anniversary Symposium of the Nobel Prize of Albert Szent-Gyorgi, Szeged, Hungary, August 31-September 4, 1987. Title: "Design Synthesis and Some Uses of Selective and Potent Antagonists of the Vascular (V₁) and Renal Tubular (V₂) Responses to Arginine Vasopressin (AVP)".
14. First International Japan Symposium on Peptide Chemistry, Kobe, Japan, September 28-October 2, 1987. Title: "C-Terminal Desglycine and Desglycinamide Modifications of Arginine Vasopressin (AVP) Agonists and Antagonists: A Reevaluation".
15. 20th European Peptide Symposium, University of Tübingen, Tübingen, Germany, September 4-9, 1988. Title: "Linear Antagonists of Arginine Vasopressin and Oxytocin".
16. Third International Vasopressin Conference, Montpellier, France, August 5-10, 1990. Title: "Antagonists of Vasopressin and Oxytocin: Current Status and Future Perspectives".
17. International Symposium on Innovation and Perspectives in Solid Phase Synthesis, Canterbury, Kent, England, August 27-31, 1991. Title: "Application of the Merrifield Solid Phase Method in the Design and Synthesis of Antagonists of Vasopressin and Oxytocin".
18. Fifth Swiss Workshop of Methodology in Receptor Research, Agno-Lugano, Switzerland, May 10-14, 1992. Title: "Design, Synthesis and Uses of Receptor-Specific Agonists and Antagonists of Vasopressin and Oxytocin".
19. The Neurohypophysis: "A Window on Brain Function". The New York Academy of Sciences, Dartmouth College, N.H., July 16-20, 1992. Title: "Receptor-Specific Antagonists of Vasopressin and Oxytocin: A Current Perspective".
20. Symposium on The Neurohypophysial Peptide Systems, Spa-Liege, Belgium, September 6-12, 1992. Title: "Molecular Design of Receptor Specific Agonists and Antagonists of Oxytocin and Vasopressin".
21. Symposium on Oxytocin, Stade, Germany, April 30-May 4, 1995. Title: "Recent Advances in the Design of Selective Antagonists and Radioiodinated Ligands for Oxytocin Receptors".
22. First World Joint Congress of Neurohypophysis and Vasopressin, NASU, Tochigi, Japan, July 16-21, 1995. Title: "Recent Advances in the Design of Selective Antagonists and Radioiodinated Ligands for Vasopressin and Oxytocin Receptors".
23. Research Colloquium: Neurohypophysial Peptides, British Endocrine Societies Meeting, Dublin, Ireland, March 25-28, 1996. Title: "Design of Receptor Specific Vasopressin and Oxytocin Agonists, Antagonists and Radioligands: Current State of the Art".

24. Eighth Swiss Workshop of Methodology in Receptor Research, Morschach, Switzerland May 3-7, 1998: Titles: (1) Discovery and Design of Novel Vasopressin Hypotensive Peptides”, (2) Closing Remarks: “A Tribute to the Swiss Receptor Workshops and to Scientific Meetings in General”.
25. 25th European Peptide Symposium, Budapest, Hungary, August 31-September 4, 1998. Title: “Exploring the Structure/Function Relationships of Novel Vasopressin Hypotensive Peptides”.
26. 26th European Peptide Symposium, Montpellier, France, September 10-16, 2000. Title: “Design and Discovery of Vasopressin and Oxytocin Agonists, Antagonists and Fluorescent Ligands with High Affinities for Human Receptors”.
27. 3rd International Peptide Symposium/28th International European Peptide Symposium, Prague, Czech Republic, September 5-10, 2004. In “The Josef Rudinger Memorial 50th Anniversary of Neurohypophyseal Hormone Synthesis Session”. Title: “Neurohypophysial Peptide Agonists and Antagonists: A Five Decade Trail from du Vigneaud to 2004”.
28. 7th World Congress on Neurohypophysial Hormones, Regensburg, Germany, September 18-22, 2007, Co-Chair Symposium. Title: “Vasopressin and Oxytocin Agonists and Antagonists from Pharmacology to Clinical Utility”.
29. Tribute to Bruce Merrifield 1984 Chemistry Nobel Laureate, Rockefeller University, November 16, 2006, Oral presentation Title: “The Merrifield Years with John Steward, Arnold Marglin, Robert Hodges and Cecile Unson”
30. 19th Polish Peptide Symposium: Pultusk, Poland, September 23-27, 2007. Title: “Some Exciting Discoveries on the Trail of Peptide and Nonpeptide Oxytocin/Vasopressin Agonists and Antagonists”.
31. Peptide Chemistry in the Twenty-First Century An International Symposium in Honor of Richard F. “Barry” Murphy, Creighton University, Omaha, NE, June 4, 2008. Title: “New Frontiers on the Trail of Selective Oxytocin and Vasopressin Agonists and Antagonists”.
32. Roche Colorado Corporation Peptide Symposium: Boulder, CO, September 14-16, 2010. Meienhofer Award Talk. Title: “Dispelling the Long Held Myth that Non-Peptides are Superior to Peptides as Therapeutics”.
33. EuroTIDES/EuroPEPTIDES: Barcelona Spain, November 17-18, 2010. Plenary Speaker: Title: “Debunking the Long Held Myth that Nonpeptides are Superior to Peptides as Therapeutics”.
34. 9th World Congress on Neurohypophysial Hormones. Northeastern University, Boston, MA, July 27-30, 2011. Keynote Address: “Oxytocin and Vasopressin Agonists and Antagonists as Research Tools and Potential Therapeutics”.
35. Gordon Research Conference: “Chemistry and Biology of Peptides”, Ventura, CA, February 19-24, 2012: Panelist, Roundtable on Peptide Science: “The Past and Future”.
36. 32nd European Peptide Symposium: Athens, Greece, September 2-7, 2012. Poster Presentation: “Twenty-five Years in European Peptide Symposia Soccer Events”. L. Balaspiri and M. Manning.

37. 4th Annual S. Amjad Hussain Visiting Lecturer in the History of Medicine and Surgery UTCOM, October 31, 2012. Title: “A Confluence of Science, Journalism and Civic Leadership, the Rich Legacy of Paul Block Jr., Ph.D.”
38. Plenary Speaker: Zing Peptide Chemistry Conference: Rivera Maya, Mexico, November 4, 2012. Title: “New Horizons in the Development of Peptides as Therapeutic Agents and as Research Tools”.
39. Toledo Torch Club Oral Presentation: April 15, 2013. “Highlights on a Six Decade Trail of Oxytocin and Vasopressin Research”
40. 10th World Congress on Neurohypophysial Hormones: Bristol, England, July 15-19, 2013: (1) Chair, Plenary Session Featuring Dr. Bice Chini; (2) Tribute to Dr. Wilbur H. Sawyer (deceased December 30, 2012)
41. First German Neuropeptide Symposium: Regensburg, Germany, June 4-5, 2015. “From New York to Toledo via Montreal: Some Exciting Findings from a Six Decade Trail of Oxytocin and Vasopressin Research”.
42. 34th European Peptide Symposium/8th International Peptide Symposium: Leipzig, Germany, Sept. 4-9, 2016. **Oral Presentation**, Maurice Manning, Stoytcho Stoev, Olivia Burton, Marta Busnelli, and Bice Chini (abstract) “The Renaissance of Oxytocin: A New Frontier in Translational Research” *J. Peptide Science* 22:42.
43. 12th World Congress on Neurohypophysial Hormones: (12th WCNH), Mangaratiba, Rio de Janeiro, Brazil: July 26-29, 2017. **Poster presentation** “Oxytocin in Translational Research: Progress in the Development of peptide Analogs” M. Manning, M. Busnelli, S. Stoev and B. Chini
44. 24th Polish Peptide Symposium: Jastrzebia Gora, September 3-7, 2017: **Invited Oral Presentation** “The Confluence of Chance Encounters, Collaborations, the Merrifield Solid Phase Method and Visiting Scientists in the Design and Synthesis of Oxytocin and Vasopressin Agonists and Antagonists”
45. 22nd RegPep2018, Acapulco, Mexico, Sept. 22-25, 2018. **Oral presentation** “Receptor Selective Agonists and Antagonists as Research Tools and Therapeutics: A Current Prospective”
46. 13th World Congress on Neurophyophysial Hormones (13th WCNH), Ein Gedi, Israel, April 8-11, 2019. **Poster Presentation** “Centrally-Mediated Effects of Oxytocin Block Compulsive-Like Alcohol Drinking in Rats”, B.J. Tunstall, D. Krison, L.J. Zallar, S.A. McConnell, J.C.M. Vendruscolo, C.P. Ho, C.S. Oleata, S. Khom, M. Manning, M.R. Lee, L. Leggio, G.F. Koob, M. Roberto, L.F. Vendruscolo.
47. 13th WCNH, Ein Gedi, Israel, April 8-11, 2019. Lifetime Achievement Award. **Oral Presentation** “Design and Synthesis of Receptor Selective Oxytocin and Vasopressin Agonists and Antagonists: An Odyssey of Chance Encounters and Surprising Discoveries”
48. Toledo Torch Club, January 21, 2020. **Oral Presentation** “The Confluence of Science and Journalism: The Pivotal Role of Paul Block Jr. in the Founding of MCO. A Personal Tribute”

PUBLICATIONS: (*Refereed Journals: P=Patents; T=Thesis)

- T 1. An Investigation of Methods for the Chemical Synthesis of Polysaccharides, J.M.P. Manning, A thesis submitted for the degree of Master of Science in the National University of Ireland (University College Galway) September, 1958.
- T 2. Steric Effects in the Pyrazole Nucleus, J.M.P. Manning. A thesis submitted for the degree of Doctor of Philosophy in the University of London (Northern Polytechnic) March, 1961.
- * 3. The Preparation and Some Reactions of 4-Formyl-1-Phenyl-Pyrazoles, I.L. Finar and J.M.P. Manning, *J. Chem. Soc.* 534:2732-2338, 1961.
- * 4. 6-Hemi-D-Cystine-Oxytocin, a Diastereoisomer of the Posterior Pituitary Hormone Oxytocin, M. Manning and V. du Vigneaud, *J. Amer. Chem. Soc.* 87:3978-3982, 1965.
- * 5. 4- β -Alanine-Oxytocin: An Analog Containing a Twenty-one Membered Disulphide Ring, M. Manning and V. du Vigneaud, *Biochemistry* 4:1884-1888, 1965.
- * 6. 1-Mercaptoacetic Acid-4- β -Alanine-Oxytocin, D. Jarvis, M. Manning and V. du Vigneaud, *Biochemistry* 6:1223-1225, 1967.
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