Curriculum Vitae: Edward Snell Ph.D

University Address

Hauptman-Woodward Medical Research Institute,
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Education

- Ph.D. The University of Manchester, United Kingdom, 1996
  Major: Chemistry
  Thesis: Uses of the synchrotron X-ray Laue technique and investigation of microgravity crystal growth

- B.Sc. with Honors, (First Class)
  Major: Applied Physics

Employment History:

- Chief Executive Officer and President, Hauptman-Woodward Medical Research Institute, December 2014 to date.
- Senior Research Scientist, Hauptman-Woodward Medical Research Institute, Buffalo NY, April 2005 onward (Senior Scientist in 2010).
- May 2003 to April 2005: Staff Scientist, at NASA Marshall Space Flight Center through BAE-SYSTEMS Analytical, Huntsville AL.
- Oct. 1999 to Dec. 1999: Consultant, University of Alabama in Huntsville AL.
- Dec. 1999 to April 2003: Staff Scientist, at NASA Marshall Space Flight Center through Universities Space Research Association, Huntsville AL.
- April 1996 to Sep. 1999: Resident Research Associate of the National Research Council at NASA Marshall Space Flight Center, Huntsville AL.

Awards:

- 2003 NASA MSFC Directors Commendation - for collaborative research Jan-2003
- Imaging Award from the Industry Magazine, Advanced Imaging, 18(1), 13 Jan-2003
- National Research Council Resident Research Associate: April 1996 to Sep. 1999

Honors

- Proposal Review Panel for NSLS-II, Brookhaven (2016-2019).
- Advisory member for Diamond Light Source Solution Scattering Science (2016-current).
- Board member (Council) for the International Organization of Biological Crystallization (2010-current).
- Stanford Synchrotron Radiation Light Source Users Executive Committee Chair (2014-current).
- Chair of the Stanford Synchrotron Radiation Light Source Users Executive Committee Chair (2015-2016).
- Ad Hoc member of the Linear Coherent Light Source Users Executive Committee (2015-2016).
- Member of the American Institute of Physics News and Media Advisory Committee (2014-2017).
- Cornell MacCHESS Advisory Committee (2014-current).
- Co-program chair for the 2016 American Crystallography Association Meeting, July 2016.

- Chair of the Gordon Diffraction Methods Conference, July 2016.
- Co-chair of the 3rd International BioXFEL Conference, January, 2016.
- Co-chair, Gordon Diffraction Methods Conference, July 2014.
- Chair of the American Crystallographic Association Biological Macromolecule Special Interest Group (2013-2014).
- Session chair, International Conference on the Crystallization of Biological Macromolecules, September 2012.
- Invited Session chair, Gordon Diffraction Methods Conference, July 2012
- Chair of sessions at multiple American Crystallographic Association Annual meetings since 2005.
- Chair "Macromolecular crystal quality and X-ray diffraction" at the American Crystallographic Association Annual meeting (2004).
- NASA Marshall Space Flight Center, Center Directors Commendation (2003).
- Co-chair for the Spacebound 2000 Biotechnology session (2000).
- Chair of a microsymposia,"New Frontiers in Crystallization" at the International Union of Crystallography world congress (1999).
- Chair "Macromolecular cryocrystallography and ultra-high resolution" session, American Crystallographic Association Annual meeting (1997)

Professional Memberships and Activities

- British Crystallographic Association since 1991
- British Institute of Physics since 1991, elected to Member in 1996, held Chartered Physicist, M.Inst.P. certification.
- American Institute of Physics since 1996
- Member of the American Crystallographic Association since 1996

Institute and University Service

Elected member of the Science Governance Council, HWI
Secretary November 2006 - 2009

Departmental Service

Recruitment committee
Member April - September 2005
Chair October 2005 - September 2006
Member October 2006 - present

Seminar committee April 2005 - present
Radiation Safety Officer April 2011 - present

Community Service

Proposal refereeing

- National Science Foundation (2002-2013)
- Canadian Space Agency Microgravity Science Program reviewer and member of evaluation panel (1998, 2006)
- NIH Shared Instrumentation Panel (2010), Major Research Instrumentation Panel (2012, 2014), Conference and Workshop Funding (2014), P41 program (2015-2016).
- French National Research Agency (2013)
- Australian National Research Agency (2014)

Journal refereeing

- Acta Crystallographica D. Biological Crystallography
- Biophysical Journal
- Biochemistry
- Journal of Applied Crystallography
- Journal of Crystal Growth
- Journal of Synchrotron radiation
- Structure
- Structural Dynamics
- Canadian Space Agency conference proceedings (1997, 2000)
- Numerous others.

Courses Taught

STB 533	Crystallographic Methods in Structural Biology I	2006-2014 2007
STB 534	Crystallographic Methods in Structural Biology II	2006 2007
STB 612	Seminar course - Practical topics	2007-2015

Research Supervision

Graduate students:

Timothy Stachowski		2016-current
Amanda Ruby	M.Sc.	2014 - 2015
Rick Roberts	M.Sc.	2012 - 2015
Kristin Wunsch	Ph.D.	2007 - 2013
Thomas Grant	Ph.D	2008 – 2013 (Deans' award for best thesis)

University of Buffalo IGPBS Rotation Students

Kristin Wunsch	2007
Richard Roberts	2011 - 2012

Undergraduate students:

Ann Wojtaszczyk	2007
Amy DeLuca	2007

Summer interns

Martin Glose	2007
Melvin Parker	2007
Suet Kam Lam	2006
Elizabeth Stofko	2006
Kristin Wunsch	2005

Research Associates

Robin Kempkes	2006 - 2011
Jennifer Riggie	2006

Grant Support

Not listed are numerous small national and international seed funding grants.

18	Principal investigator	NASA Growth Rate Dispersion as a Predictive Technique, $750K	2013-2018
17	Principal investigator	CASIS Exploiting on-orbit crystal properties for structural studies of medically and economically important targets, $300K	2013-2014
16	Co-Investigator	NSF MRI-R^2: Development of STIM and DATS for Protein and Nanosystem Characterization, $1,001K (P.I. Markalez)	2010-2013
15	Co-Principal investigator	DoD, Preventing Long-Term Brain and Lung Damage Caused by Battlefield Trauma, $2,900K (Co. PI Luft).	2010-2013
14	Principal investigator	NIH R01 Development of an Expert Crystal Knowledge System (10^{th} percentile) $1,676K	2010-2014
13	Co Principal investigator	Goode Foundation, Combating Viruses – New Technologies to Visualize, Understand, and Enable Their Treatment, $250K	2008-2011
12	Principal investigator	ISH A Structural Understanding of the Molecular Defense against Chronic Obstructive Pulmonary Disease, $75K(Co. PI Luft).	2009-2010
11	Co-Investigator	DOE Laboratory Directors Research and Development Fund proposal, "High throughput crystallography for macromolecular structure, function and design", $120K (P.I. Myles)	2007-2009
10	Co-Investigator	NIH U54 Protein Structure Initiative center Grant, "Tools for High Throughput Structural Biology", $16,900K (P.I. DeTitta).	2006-2008
9	Co-Investigator	NASA Fundamental Space Biology proposal, "The Master Switch for Bone Formation: Structural Studies of RunX2", $464K (P.I. van der Woerd).	2005-2010
8	Co-Investigator	NASA flight proposal, Macromolecule Nucleation and Growth Rate Dispersion Studies", $400K	2003-2006
7	Principal investigator	NASA biotechnology proposal, "Cool Crystals–A Physical and Biochemical Study of Macromolecular Crystal Cyropreservation, $600K	2003-2006
6	Principal investigator	NASA biotechnology proposal, "Searching for the Best Protein Crystals: Integration of Synchrotron-Based Crystal Quality Measurements and Structure Determination", $830K (P.I. Borgstahl)	2001-2005
5	Co-Principal investigator	NASA fluid physics proposal, "The Study and Optimization of Flow in Solution Biological Crystal Growth (Co P.I. Pusey and Judge).	2001-2005
4	Co Principal investigator	Optimizing the Use of Microgravity to Improve the Diffraction Quality of Problematic Biomacromolecular Crystals and Macromolecule Nucleation (P.I. Kundrot).	2000-2004
3	Co. investigator	NASA biotechnology flight research Proposal, "Growth Rate Dispersion Studies: A Predictive Technique for Crystal Quality Improvement in Microgravity", $288K (Co P.I. Judge).	1999-2003
2	Co Principal investigator	NASA Advanced Technology Development program, "A Diffractometer for Reciprocal Space Mapping of Macromolecular Crystals to Study Their Microstructure", $500K (Co P.I. Chernov and Pusey).	1999-2003
1	Co Principal investigator	NASA biotechnology research proposals "Searching for the Best Protein Crystals: Synchrotron Based Mosaicity	1998-2002