

CURRICULUM VITAE

1. **J. William Suggs**
Associate Professor
Chemistry, Brown University

2. **Home Address:**
236 Samuel Gorton Avenue
Providence RI 02889

3. **Education:**
B.S. (Honors) University of Michigan, 1970
Ph.D. (Chemistry), Harvard University, 1976

Dissertation Topic: I. Transition Metal Sensitive Protecting Groups. II. Organotin Reagents in Organic Synthesis. III. New Chromium(VI) and (V) Oxidants in Organic Synthesis.

4. **Professional Appointments:**
Member of Technical Staff, Bell Laboratories, 1976 - 1981
Brown University: Assistant Professor 1981 - 86
Brown University: Associate Professor 1986 -
Brown University: Associate Professor of Biochemistry 1991-

5. **Publications:**

a. *ORGANIC CHEMISTRY*, J. Wm. Suggs, Barron's, Hauppauge N.Y., 2002, 470 pp.

b.

1. The Octet Rule, p 12 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
2. Counting the Number of Constitutional Isomers, p. 57 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
3. Artificial Blood, p. 98 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
4. The Strongest Acid? p. 117 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
5. Organic Materials that Conduct Electricity, p. 217 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
6. J. William Suggs, Mechanism-Based Synthesis of Enzyme Inhibitors, pp. 220-221 in "Organic Chemistry", Wm. H. Brown, Sanders College Publishing, Orlando, 1994.

7. Catalysts for Diels-Alder Reactions, p. 258 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
8. Chirality and the Search for Extraterrestrial Life, pp. 294-295 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
9. Chiral Drugs, p. 300 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
10. Blood Alcohol Screening, p. 337 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
11. Cytochrome P-450: A Versatile Biological Oxidant, p. 340 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
12. Testing the Shape of the S_N2 Transition State, pp. 378-379 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
13. Why Life Exists, p. 388 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
14. Ethylene Oxide and the Body's Defenses, p. 441 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
15. Crown Ethers and Chirality Sensors, pp. 441-442 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
16. Magnetic Resonance Imaging, pp. 498-499 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
17. ³¹P-NMR Spectroscopy as a pH Meter, p. 502 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
18. Dyes that Absorb in the Infrared, p. 531 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
19. Chemiluminescence, p. 537 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
20. Isolation of Cyclobutadiene, pp. 558-559 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
21. Resists, pp. 576-577 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
22. The Organic Chemistry of Lacquer, p. 588 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.

23. Synthesis of Simple Enols, p. 679 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
24. Understanding the Shapes of Biological Molecules, pp. 736-737
25. The Maillard Reaction, p. 747 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
26. New Organic Acids, p. 783 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
27. Carbamate Insecticides, pp. 846-847 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
28. Industrial Synthesis of Ibuprofen, pp. 858-859 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
29. The Bergman Reaction and Anti-Cancer Drugs, pp. 910-911 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
30. Polyamines, p. 925 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
31. Why Cholesterol? p. 1020 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
32. Vitamin K, Blood Clotting and Basicity, pp. 1026-1027 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
33. Enzymes through the Looking Glass, p. 1074 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
34. Making Channels for Ions, pp. 1077-1078 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
35. Mustard Gases and the Treatment of Neoplastic Diseases, p. 1102 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando, 1994.
2000 DNA as a Drug, p. 1105 in "Organic Chemistry", with Wm. H. Brown, Sanders College Publishing, Orlando
37. The Organometallic Chemistry of Palladium, in The Encyclopedia of Inorganic Chemistry, R. B. King, ed., J. Wiley and Sons, London, 1994.
38. *Palladium: Organometallic Chemistry, in The Encyclopedia of Inorganic Chemistry, 2nd Edition, R. B. King, ed., J. Wiley and Sons, London, 2005.

c.

1. Cleavage of Allyloxycarbonyl Protecting Group from Oxygen and Nitrogen Under Mild Conditions by Nickel Carbonyl, *J. Org. Chem.*, **38**, 3223 (1973), with E. J. Corey.
2. Selective Cleavage of Allyl Ethers Under Mild Conditions by Transition Metal Reagents, *J. Org. Chem.*, **38**, 3224 (1973), with E. J. Corey.
3. A Method for Catalytic Dehalogenation via Trialkyltin Hydrides, *J. Org. Chem.*, **40**, 2554 (1975), with E. J. Corey.
4. A New Method for Protection of Carbonyl Compounds as 5-Methylene-1,3-dioxanes, *Tetrahedron Letters*, 3775 (1975), with E. J. Corey.
5. Pyridinium Chlorochromate. An Efficient Reagent for Oxidation of Primary and Secondary Alcohols to Carbonyl Compounds, *Tetrahedron Letters*, 2647 (1975), with E. J. Corey.
6. A Convenient Synthesis of (S)-(-)-Pulegone from (-)-Citronellol, *J. Org. Chem.*, **41**, 380 (1976), with E. J. Corey and H. E. Ensley.
7. A New Protecting Group from the Carbonyl Function, *Tetrahedron Letters*, 4577 (1976), with E. J. Corey and E. J. Trybulski.
8. Limits on the Transition State Geometry for Metal Insertion into a Carbon-Hydrogen Bond, *Tetrahedron Letters* **21**, 3853 (1980), with G.D.N. Pearson.
9. Ketone Synthesis by Hydroacylation, U.S. Patent, 4,241,206, 1980.
10. Facile Homogenous Hydrogenation of Hindered Olefins with Ir(cod)py(PCy₃)PF₆, *Tetrahedron Letters*, **22**, 303 (1981) with S. D. Cox, R. H. Crabtree, and J. M. Quirk.
11. Right-handed Alternating DNA Conformation. Poly (dA-dT) Adopts the Same Dinucleotide Repeat with Cesium, Tetraalkylammonium and 3'-phosphorothioate-dipyrroli-dinium Steroid Dimethiodide Cations in Aqueous Solution, *Proc. Natl. Acad. Sci. USA*, **78**, 4063 (1981), with D. J. Patel, S. A. Kozlowski, and S. D. Cox.
12. Geometric Isomerism in Quinolylmethylenes, *J. Am. Chem. Soc.*, **103**, 5147 (1981), with R. S. Hutton, H. D. Roth, and M. L. Manion Schilling.
13. Directed Cleavage of SP²-SP Carbon-Carbon Bonds, *J. Organometallic Chem.*, **221**, 199 (1981), with S.D. Cox.
14. Umpolung with Rhodium Iminoacyls. The Use of Metal Oxidation State to Control the Nucleophilicity or Electrophilicity of Acyl Carbons, *Organometallics*, **1**, 402 (1982), with S. D. Cox.
15. Directed Cleavage of Carbon-Carbon Bonds by Transition Metals: The α -Bonds of Ketones, *J. Am. Chem. Soc.*, **106**, 3054 (1984) with C.-H. Jun.

16. Synthesis, Structure and Ligand-Promoted Reductive Elimination in an Acylrhodium Ethyl Complex, *Organometallics*, **4**, 1101 (1985), with M.J. Wovkulich and S.D. Cox.
17. Metal Catalyzed Alkyl Ketone to Ethyl Ketone Conversions in Chelating Ketones via Carbon-Carbon Bond Cleavage, *J. Chem. Soc., Comm.*, **92**, 1985 with C.-H. Jun.
18. Formation of CO₂ and a Four-Membered 1,3-Dimetallacycle by Deoxygenation of a Ketone with [Rh(CO)₂Cl]₂, *J. Am. Chem. Soc.* **107**, 5546 (1985), with M.J. Wovkulich and K.S. Lee.
19. Evidence for Sequence-specific conformational changes in DNA from the Melting Temperatures of DNA Phosphorothioate Derivatives, *Nucleic Acids Res.*, **13**, 5705 (1985) with D.A. Taylor.
20. Use of Phosphorothioate analogs of Poly(dA-dT) Poly(da-dT) to Study Steroidal-Diamine Induced Conformational Change in Poly(da-dT) Poly (dA-dT), *FEBS Letters*, **189**, 77 (1985) with D.A. Taylor.
21. Synthesis and Structure of Anthramycin Analogs via Hydride Reduction of Dilactams, *Tetrahedron Lett.*, **26**, 4871 (1985) with Y.-S. Wang and K.S. Lee.
22. Directed Cleavage of Carbon-Tin Bonds by Palladium, *J. Organometallic Chem.*, **299**, 297 (1986), with K. S. Lee.
23. Structure of the Simple Lithium Chelate (LiCH₂H₂CH₂NMe₂)₂₄, *J. Organometallic Chem.*, **299**, 31 (1986), with K.S. Lee and P.G. Williard.
24. Reactivity Patterns in the Reaction of [Rh(CO)₂Cl]₂ with Chelating Ketones, *J. Organometallic Chem.*, **307**, 71 (1986), with M. J. Wovkulich and K.S. Lee.
25. Synthesis of a Chiral Rhodium Alkyl via Metal Insertion into an Unstrained C-C Bond. *J. Am. Chem. Soc.*, **108**, 4679 (1986), with C.-H. Jun.
26. Hydrocarbon Oxidations with CrO₂(O₂CCF₃)₂, *Tetrahedron Lett.*, **27**, 437 (1986), with L. Ytuarte.
27. Nuclease Recognition of a Dinucleotide Repeat Conformation of Alternating poly(dA-dT) Tracts in Plasmids, *Nucleic Acids Research*, **14**, 3703 (1986), with R. Wagner.
28. Preparation, Structure and Spectroscopic Studies of the Palladium Mercaptides Pd₈(S_n-Pr)₁₆ and Pd₆(S_n-Pr)₁₂, *Inorganica Chimica Acta.*, **145**, 247 (1988), with J.D. Higgins, III.
29. Drug-Induced Stereochemical Changes in Psoralen Photoaddition to DNA, *Bioorganic Chemistry*, **16**, 175 (1988) with P. M.-C. Liao, W.J. Bass and J.T. Millard.

30. Synthesis and DNA Crosslinking Ability at a Dimeric Anthramycin Analog, *Tetrahedron Letters*, 29, 5105, (1988) with J.D. Farmer, Jr., and S.M. Rudnicki,
31. Base Selective DNA Cleavage with a Cyclometalated Palladium Complex *Transition-metal Nucleic Acid Chemistry*, ACS Symposium volume, 402 T.J. Tullius, ed., 1989, with J.D. Higgins III, R. Wagner and J.T. Millard.
32. Reversible DNA Crosslinking by Dimeric Analogs Anthramycin, 'Sixth Conversation in Biomolecular Stereodynamics; R.H. Sarma, ed., Institute of Biomolecular Stereodynamics Press, Albany NY, A49 1989, with J. Dean Farmer Jr., and Gary R. Gustafson..
33. Small Molecule - Large Molecule Interactions: Increasing the selectivity of Certain Restriction Enzymes, *ibid*, p. 95 with J.D. Farmer, Jr.
34. DNA Cleaving Properties of Metallointercalation Reagents, *ibid.*, p. 97, with Suzanne Rudnicki.
35. Synthesis and Properties of Anthramycin Analogs with a Metal Binding Site, *ibid.*, p. 144, with Gary R. Gustafson.
36. Enhancing the Specificity of Type II Reduction Enzymes Containing Interrupted DNA Recognition Sites via Distamycin A Binding, submitted to *Bioorganic Chemistry*. with J. Dean Farmer, Jr., and R. M. Stratt.
37. DNA Binding Properties of a New Class of Linked Anthramycin Analogs, *Nucleic Acids Res.*, 19, 899 (1991) with J. Dean Farmer, Jr., G. R. Gustafson, A. Conti and M. B. Zimmt.
38. Nicking of Supercoiled DNA Via Metal Radicals Generated From Photolysis of Species Containing Metal-Metal Bonds, *Bioorganic and Medicinal Chemistry Letters* 1, 451 (1991) with S. Rudnicki, A. A. Stankus and C. P. Kubiack.
39. A Stable Solid That Generates Hydroxyl Radical Upon Dissolution in Aqueous Solutions: Reaction with Proteins and Nucleic Acid, *J. Am. Chem. Soc.*, **114**, 5430 (1992) with P. A. King, V. E. Anderson, J. O. Edwards, G. Gustafson and R. C. Plumb.
40. Synthesis and Structure of a Product, formed during DNA Nicking with a Cyclometalated Nuclease, with M. J. Dube and M. Nichols, *J. Chem. Soc., Chem. Commun.*, pp. 307-308, 1993.
41. Facile Hydrolysis and Formation of Amide Bonds by N-Hydroxylation of alpha-Amino Acids, J. William Suggs and R. Pires, *Tetrahedron Lett.*, 38, 2227, (1997).
42. Biological Effects of a Bifunctional DNA Crosslinker I. Generation of Triradial and Quadraradial Chromosomes, *Mutation Research* **426** (1999) 79-87. L. Matsumoto, K. Kurek, K. Larocque, G. Gustafson, R. Pires, J. Zhang, U. Tantravahi and J.W. Suggs.

43. Biological Effects of a Bifunctional DNA Crosslinker II. Generation of Micronuclei and attached micronuclear-like structures, *Mutation Research* **426** (1999) 89-94. K. Kurek, L. Matsumoto, G. Gustafson, R. Pires, U. Tantravahi and J.W. Suggs
44. Effect of the Universal Base 3-Nitropyrrole on the Selectivity of Neighboring Bases, *Organic Letters* **3** (2001) 1997-1980. J. S. Oliver, K. A. Parker and J. W. Suggs
- *45. Development of a DNA-damaging ferrocene amino acid, J. Organometallic Chem. 696 (2011) 3058-3061. Daniel C. Cooper, Craig J. Yennie, Jesse B. Morin, Sarah Delaney and J. W. Suggs**

d.

1. Perturbation of the Dinucleotide Repeat Conformation in Alternating Poly d(AT) d(AT), 'Fifth Conversation in Biomolecular Stereodynamics', R.H. Sarma, Ed., Institute of Biomolecular Stereodynamics Press, Albany, NY, p. 95, 1987, with R.W. Wagner.
2. Changes in the Diastereoselective Addition of Psoralens to DNA Induced by Drugs, 'Fifth Conversation in Biomolecular Stereodynamics', R.H. Sarma, Ed., Institute of Biomolecular Stereodynamics Press, Albany, NY, p. 154, 1987, with J.T. Millard, W.

g:

- 1978 State University of New York at Stony Brook
E. R. Squibb and Sons, Inc.
- 1979 University of Pittsburgh
Rutgers University
Dartmouth University
NSF Organometallic Workshop, Pingrey Park, Colorado
- 1980 Brown University
University of Pennsylvania
Houston ACS National Meeting Symposium on Homogeneous
Catalysis
- 1981 Physical Organic Chemistry Gordon Conference
University of Rochester
University of Rhode Island
- 1982 American Cyanamid, Shulton Division
- 1983 Washington ACS National Meeting Symposium on C-H and C-C
Activation
- 1984 MIT-Boston Area Organometallics Symposium
- 1985 Rensselaer Polytechnic Institute
General Electric, Central Research Division
Yale University

- Brown Division of Biology
1986 University of Michigan
Michigan Technological University
Carleton College
Worcester ACS Section
1987 Guelph-Waterloo Centre for Graduate Study in Chemistry
Syracuse University
1987 Fifth Conversation in Biomolecular Stereodynamics,
Albany
1988 Worcester Polytechnic Institute
University of North Dakota
Toronto ACS-North American Chemical Congress
Symposium on Metal-Nucleic Acid Interactions
1989 Boston College
1990 Department of Pharmacology, Brown University
1991 Dupont-Merck Anticancer Drug Development Division
1991 Jackson State University, Jackson, MS
1992 Queens College, New York
1999 New England Association of College Chemistry Teachers

2001 Robert Young Lecture, Rhode Island College

2003 Notre Dame, Symposium on Chemical Education

j. Research in progress:

"Electron Transfer in Ferrocenes" with Daniel Cooper

"New Silica Materials" with Shanyu Zhao (Research Assistant)

6.b.

National Institutes of Health GM 39614-01, 1/88-12/90

National Institutes of Health RR 04735, 1/89, for purchase
of computer modeling equipment (JWS P.I., is co-investigator)

American Cancer Society CH-475 1/90-12/91

Brown University Curriculum Development Grant, "Computer aided instruction
in Organic Chemistry," 1990-91 supported by the Dean of the College
Research Corporation, "Synthesis and Properties of Hexose Derivatives
of DNA", 12/96 -12/98, \$24,524.

"Frontiers in Computational Biology", ID 211, Brown Lectureships Committee,
Spring Semester, 1998, \$3,000.

“Applying Universal Bases to Achieving the Full Potential of Sequencing by Hybridizaion”
NSF 9983081 (Awarded 7/00, two years, \$427,000 year one) co-PI (Preparata PI).

"New Course: Computational Tools in Biochemistry and Chemical Biology, CHEM 1220"
Dean of the College, Summer 2007, \$3000.

"Metallocenes as Base Pair Step Analogs for Sequencing by Hybridization",
\$150,000 year 1, \$125,000 year 2, NIH R21 declined

"Highly Diverse Catalyst Discovery" 2008-2011, Petroleum Research Fund, \$150000
declined

"Hybridization Detection with Ferrocenyl Nucleosides" Brown Chemistry Frontiers
Award, 2007, \$20000.

SpaceGrant Fellowship awarded to my graduate student Daniel Cooper 2009-2010,
tuition and fees

PRC Graduate Traveling Fellowship awarded to my visiting graduate student Shanyu
Zhao, 2009-2010, \$15000

***“Analytical Chemistry in the Curriculum “, 2011-2012, Teagle Foundation, \$7500.**

**6.c. *Dissertation Fellowship awarded to my graduate student Daniel Cooper, for
Spring 2011.**

7. Service:

i) To the University:

Member, Student Support Services Committee, 1982-1983

Co-Organizer, Geo-Chem Building Symposium, 1983

Member, Chemistry Graduate Admissions Committee, 1983

Member, University Committee on Student Affairs 1989-91

Chair, Faculty Search Committee, Organic Chemistry

Appointment, 1992, 1993

Freshman Advisor, 1995-

Member, Chemistry Department Nomination Committee, 1996

Biochemistry ScB Concentration Advisor, 1992-

Member, Chemistry Safety Committee, 2000

Faculty Fellow, Office of Student Life, Wriston Quad 1998-

Chair, Search Committee, Assistant Professor, Organic Chemistry 1998

Head Faculty Fellow 1999- Keeney Quad

Randall Counselor 1999-2000

Member, University Radiation Safety Committee 1999-

Member, Executive Committee, Brown Center for Geneics and Genomics 2000-

Chair, Search Committee, Assistant Professor, Organic Chemistry 2002

Member, College Curriculum Committee 2003
Chair, Search Committee, Assistant Professor Organic Chemistry 2004
Member, Committee on Increasing Undergraduate Diversity in the Sciences
Chair, Search Committee, Lecturer in Organic Chemistry 2005
Member, University Special Search Committee, University Ombusman
Member, University RUE Selection Committee 2005-2008
Member, University Special Committee on the Undergraduate Experience 2007
Member, College Curriculum Committee 2007-2009
Hearing Officer, Academic Code Disciplinary Board 2007-
***Chair, Chemistry Graduate Admissions Committee 2007-2012**
***Member, University Radiation Safety Committee, 2008-2012**
*** Member, Graduate Council, 2010-2012**

ii)

With Professors Franco Preparata, Computer Science and David Rand, Neuroscience we proposed and obtained approval for the new undergraduate concentration in Computational Biology. Students who major in this area will follow one of three tracks, in computer science, molecular modeling or biological modeling, and will take a menu of courses in computer science, chemistry and biology. JWS serves as the advisor of the modeling track in this concentration.

iii) Currently reviewer for four chemistry and biochemistry journals. Also on the nominating committee for the American Chemical Society Dow Award in Organometallic Chemistry.

8. Academic Honors:

Reviewer, Special Bioorganic Study Section, NIH, 1992
Special Reviewer, Bioorganic Study Section, NIH, 1991
Reviewer, Cancer Program Project Grant, NIH, 1991
Research Career Development Award, 1984-89
NSF Predoctoral Fellow, 1970-1972
Woodrow Wilson Fellow, 1970
Moses Gomberg Scholar, 1969-1970

9. Courses Taught:

1995-96	Chemistry 243; Chemistry 123
1996-97	Chemistry 242; Sabbatical spring, 1997
1997-98	Chemistry 25 Laboratory (330 students); Chemistry 26 Lecture

1998-99	Chemistry 25 Laboratory (305 students); Chemistry 124
1999-00	Chemistry 25 Lectures (285 students); Chemistry 35 lecture (65 students)
2000-01	Chemistry 25 Lecture (230 students); Chemistry 35 lecture (125 students)
2001-02	Chemistry 35 Lecture (175 students), Chemistry 97, 98 (2 students)
2002-2003	Chemistry 123 (16 students), Chemistry 231 (6 students), Chemistry 243.
2003-2004	Chemistry 123 (22 students), Chemistry 36 Lab (212 students) CH40 (27)
2004-2005	Chemistry 123 (18 students), Chemistry 36 Lab (226 students) CH124 (16) CH156 section 2 (1)
2005-2006	CH36 (155 students), CH35 (160 students), CH19 (18 students): Freshman Seminar
2006-2007	Chemistry 40 (27 students) Chemistry 19 (freshman seminar) Chemistry 2420 (8 students)
2007-2008	Chemistry 242 (19 students) Chemistry 0350 (341 students) Chemistry 1220 (12 students, new course)
2008-2009	Chemistry 0350 (365 students) Sabbatical fall
2009-2010	Chemistry 122 (7 students) Chemistry 0360 (280 students, one of two sections)
2010-2011	Chemistry 243 (16 students) Chemistry 123 (35 students)

Undergraduate Honors Thesis: 1 (1983); 2 (1984); 2 (1985);
1 (1986); 1 (1991); UTRA Fellow direction 1991,
1992; 2 (1992); 1 (1993); WISE Fellow 1993; UTRA Fellow, 1996, 99, 2000, Pfizer
Fellow 2000 UTRA Fellows (3) 2001

*2007-2008 2

Ph.D. Thesis: K.S. Lee, 1985/D. A. Taylor, 1985/
C.-H. Jun, 1986/J. D. Higgins, III, 1987/
R. W. Wagner, 1987/L. Ytuarte, 1987/J.T. Millard, 1988
A. Stankus, 1989/J.D. Farmer, Jr., 1989/ E.M. West, 1990
S. Rudnicki, 1991/C. A. White, 1991
G. Gustafson, 1992/ M. Dube, 1992/ Z-D. Zhang, 1992
R. Pires, 1995/ F. Sayed-Esfahani, 1996;
M. Wang, 1998, Karen Hebner Almeida, 1999
*D. Cooper 2011

Masters Thesis: J. Brown, 1983, W. Peng, 1998

Ph.D. Theses: 20

***Concentration Advisor, Sc. B. Biochemistry**, 36 students, Sc.B. Computational Biology,
Molecular Modeling track, 1 student