

Curriculum Vitae

Bhanu P. Jena

**George E. Palade University Professor
Distinguished Professor of Physiology
Wayne State University School of Medicine**

Office Address:

Department of Physiology
5245 Scott Hall
Wayne State University School of Medicine
540E Canfield Avenue
Detroit, MI 48201-1928

Telephone: (313) 577-1532

Fax: (313)-993-4177

E-mail: bjena@med.wayne.edu

Web: <http://www.med.wayne.edu/physiology/facultyprofile/jena>

PERSONAL

Nationality: American

DOB: November 1, 1955

Residence: Michigan

Family Status: Married, one child

ACADEMIC POSITIONS

- 1994-2000 Assistant Professor, Department of Surgery, Biomedical Engineering, Cancer Center, Yale University School of Medicine, New Haven, Connecticut.
- 2000- Professor, Department of Physiology, Wayne State University School of Medicine, Detroit, Michigan.
- 2004- Distinguished Professor, Department of Physiology, Wayne State University School of Medicine, Detroit, Michigan.
- 2004- George E. Palade University Professor, Wayne State University, Detroit, Michigan.
- 2006- Professor, Department of Chemical Engineering & Material Science, Wayne State University

Other Professional Appointments:

- 1998-2000 Director, Yale Drug Discovery & Delivery Center.
- 1999-2000 Full Member, Yale Cancer Center
- 2000- Founder-Director, Institute of NanoBioScience, Wayne State University, Detroit, Michigan.
- 2001- Full Member, Karmanos Cancer Center, Wayne State University School of Medicine, Detroit, Michigan.
- 2002- Founder and Co-Director, Asian Institute of Nanoscience & Technology, Pusan, S. Korea.

ACADEMIC DEGREES

Baccalaureate: BSc., Utkal University, India, 1975
 Graduate: MSc., Utkal University, India, 1978
 Ph.D., Iowa State University, USA, 1988

Training

1982-1988 Graduate Research and Teaching Assistant, Department of Zoology, Iowa State University.
 1988-1990 Postdoctoral Associate, Biochemistry, Department of Zoology & Genetics, Iowa State University.
 1990-1992 Postdoctoral Associate, Cell Biology, Department of Cell Biology, Yale University.
 1992-1993 Associate Research Scientist, Department of Cell Biology, Yale University.

HONORARY DEGREES

2002 Doctor Honoris Causa, Vasile Goldis University, Romania
 2002 Honorary Doctor of Philosophy, Pusan National University, Korea.
 2003 Doctor Honoris Causa, "Iuliu Hatieganu" University of Medicine & Pharmacy, Romania.
 2003 Honorary Doctorate, 'Babes-Bolyai' University, Romania, May 26, 2003., jointly with Professors George E. Palade, and Günter Blobel.
 2003 Honorary Doctorate, Institute of Physiology, Georgian Academy of Sciences, Georgia
 2005 Honorary Doctorate in Medicine, 'Carol Davila' University, Bucharest, Romania

VISITING PROFESSORSHIPS

2002 Distinguished Visiting Professor, Vasile Goldis University, Romania
 2002 Distinguished Visiting Professor, Pusan National University, Korea.
 2002 Distinguished Visiting Scientist, Vinca Research Institute, Belgrade, Yugoslavia
 2003 Distinguished Visiting Professor, 'Babes-Bolyai' University, Romania, May 26, 2003.
 2006 Distinguished Visiting Professor, Agharkar Research Institute, Govt. of India, Pune, India
 2010 Visiting Professor, Stanford, CA, USA

AWARDS/HONORS (SELECTED)

1976 National Merit Scholarship Awarded by the Government of India.
 1978 Utkal University Prasant Ku. Memorial Prize for outstanding scholastic achievement
 1978 Utkal University Scholastic Merit Gold Medal
 1988 Iowa State University Humanitarian Award
 1988 Iowa State University Research Excellence Award

- 1992 & 1993 Twice recipient of the Swebelius Cancer Research Award
- 1995 & 1996 Twice recipient of the OHSE Award, Yale University
- 2002 Elected Foreign Member, Korean Academy of Science and Technology, jointly with Professor Ahmed H. Zewail.
- 2002 Hallim Distinguished Award Lecture, Korean Academy of Science and Technology, jointly with Professor Ahmed H. Zewail.
- 2003 Wise & Hellen Burroughs Foundation Distinguished Award Lecture
- 2004 George E. Palade University Professor, Wayne State University
- 2005 Sir Aaron Klug Award
- 2005 George E. Palade Distinguished Award Lecture & Medal, Wayne State University School of Medicine.
- 2006 Felicitation & Award, Maharashtra Association for Cultivation of Science, Pune, India
- 2006 Elected Foreign Member National Academy of Medical Sciences, Romania
- 2006 G. E. Palade Distinction Medal for excellence in medicine, 'Carol Davila' University, Bucharest, Romania
- 2007 Elected to the Academy of Scholars, Wayne State University
- 2007 American Society of Animal Science, 'Basic Biological Science Award'
- 2009 Ranbaxy Basic Research in Medical Sciences Award

PROFESSIONAL AND HONORARY FELLOWSHIPS

- 1989 Elected Sigma Xi Scientific Society
- 2002 Elected Foreign Member, Korean Academy of Science and Technology
- 2006 Elected Foreign Member National Academy of Medical Sciences, Romania
- 2007 Elected Academy of Scholars, Wayne State University
- 2009 Associate Secretary General, International Federation of Cell Biology

ACADEMIC SERVICE

- Committee on International Academic Collaborations & Affiliations, Wayne State University.
- Promote excellence in global education & research.
- Establish sister nano institutes: the Asian Institute of Nanoscience & Technology, S. Korea, and the Nano Centers in Romania, and Republic of Georgia.
- Advisory Board Member in a number of committees, Wayne State University.
- Mentor to more than 50 students and post-docs.
- Served on NIH Study Sections
- Reviewer: Research Proposals for NIH, NSF, DOE, European Research Commission, etc.
- Editorial Board Member in two international scientific journals.
- Reviewer for a number of international scientific journals.

•Editor for three books (AFM in Cell Biology, Academic Press; AFM in Biology and Medicine, Wiley; Methods in Nano Cell Biology, Academic Press).

LECTURES

More than 400 lectures presented nationally and internationally in the past decade.

SELECTED PUBLICATIONS (CELL SECRETION & MEMBRANE FUSION)

Selected Publications (Secretion/Membrane Fusion)

1. Cho, W.J., Lee, J-S., Ren, G., Zhang, L., Shin, L., Manke, C.W., Potoff, J., Kotaria, N., Zhvania, M.G., **Jena, B.P.** (2011) Membrane-directed molecular assembly of the neuronal SNARE complex. *J. Cell. Mol. Med.* 15:31-37.
2. Issa, Z., Manke, C.W., **Jena, B.P.**, Potoff, (2010) J.J. Ca²⁺ Bridging of Apposed Phospholipid Bilayer *J. Phys. Chem.* [Cover] 114:13249-13254.
3. Cho, W-J., Lee, J-S., **Jena, B. P.** (2010) Conformation states of the neuronal Porosome complex. *Cell Biol. Int.* 34:1129-1132.
4. Shin, L., Cho, W-J., Cook, J., Stemmler, T., **Jena, B. P.** (2010). Membrane Lipids Influence Protein Complex Assembly-Disassembly. *J. Am. Chem. Soc.* 132:5596-5597.
5. Chen, Z-H., Lee, J-S., Shin, L., Cho, W-J., **Jena, B. P.** (2010) Involvement of β -adrenergic receptor in synaptic vesicle swelling and implication in neurotransmitter release. *J. Cell. Mol. Med.* (published on-line ahead of print; 10.1111/j.1582-4934.2010.01026.x).
6. Lee, J-S., Cho, W-J., Shin, L., **Jena, B. P.** (2010) Involvement of cholesterol in synaptic vesicle swelling. *Exp. Biol. Med.* 235:470-477.
7. Shin, L., Basi, N., Lee, J-S., Cho, W-J., Chen, Z., Abu-Hamdah, R., Oupicky, D., **Jena, B. P.** (2010). Involvement of vH⁺-ATPase in synaptic vesicle swelling. *J. Neurosci. Res.* 88(1):95-101.
8. Cho, W-J., Shin, L., Ren, G., **Jena, B. P.** (2009) Structure of membrane-associated neuronal SNARE complex: Implication in neurotransmitter release. [cover] *J. Cell Mol. Med.* 13:4161-4165.
9. Lee, J-S., Cho, W-J., Jeftinija, K., Jeftinija, S., **Jena, B. P.** (2009) Porosome in astrocytes. *J. Cell Mol. Med.* 13:365-372.
10. Cho, W-J., Ren, G., Lee, J-S., Jeftinija, K., Jeftinija, S., **Jena, B.P.** (2009) Nanoscale three-dimensional contour map of protein assembly within the astrocyte porosome complex. *Cell Biol. Int.* 33:224-229.
11. Cook, J.D., Cho, W.J., Stemmler, T.L., **Jena, B.P.** (2008) Circular dichroism (CD) spectroscopy of the assembly and disassembly of SNAREs: the proteins involved in membrane fusion in cells. *Chem. Phys. Lett.* 462:6-9.
12. Cho, W-J, Ren, G., **Jena, B.P.** (2008) EM 3D contour maps provide protein assembly at the nanoscale within the neuronal porosome complex. *J. Microscopy* 232:106-111.

13. Potoff, J.J., Issa, Z., Manke Jr, C.W., **Jena, B. P.** (2008) Ca^{2+} -Dimethylphosphate complex formation: providing insight into Ca^{2+} mediated local dehydration and membrane fusion in cells. *Cell Biol. Int.* 32:361-366.
14. Cho, W-J, Jeremic, A., Jin, H., Ren, G., **Jena, B.P.** (2007) Neuronal fusion pore assembly requires membrane cholesterol. *Cell Biol. Int.* 31:1301-1308.
15. Cho, W-J., **Jena, B. P.** (2007) *N*-ethymaleimide sensitive factor is a right-handed molecular motor. *J. Biomed. Nanotech.* 3(2):209-211.
16. Jeremic, A., Quinn, A.S., Cho, W-J., Taatjes, D.J., **Jena, B. P.** (2006) Energy-dependent disassembly of self-assembled SNARE complex: observation at nanometer resolution using atomic force microscopy. *J. Am. Chem. Soc.* 128:26-27.
17. Jeremic, A., Cho, W-J., **Jena, B. P.** (2006). Cholesterol is critical to the Integrity of neuronal porosome/fusion pore. *Ultramicroscopy* 106:674-677.
18. Abu-Hamdah, R., Cho, W-J., Hörber, J.K.H., **Jena, B. P.** (2006). Secretory vesicles in live cells are not free-floating but tethered to filamentous structures: a study using photonic force microscopy. *Ultramicroscopy* 106:670-673.
19. Cho, W-J., Jeremic, A., **Jena, B. P.** (2005). Size of supramolecular SNARE complex: membrane-directed self-assembly. *J. Am. Chem. Soc.* 127:10156-10157.
20. Jeremic, A., Cho, W-J., **Jena, B. P.** (2005). Involvement of water channels in synaptic vesicle swelling. *Exp. Biol. Med.* 230:674-680.
21. Kelly, M., Abu-Hamdah, R., Cho, S-J., Ilie, A.L., **Jena, B.P.** (2005) Patch clamped single pancreatic zymogen granules: direct measurement of ion channel activities at the granule membrane. *Pancreatology.* 5:443-449.
22. Cho, W-J., Jeremic, A., **Jena, B. P.** (2005). Direct interaction between SNAP-23 and L-type calcium channel. *J. Cellular & Mol. Med.* 9(2):380-386.
23. Abu-Hamdah, R., Cho, W-J., Cho, S.-J., Jeremic, A., Kelly, M., Ilie, A.E., **Jena, B.P.** (2004). Regulation of the water channel aquaporin-1: isolation and reconstitution of the regulatory complex. *Cell Biol. Int.* (28):7-17.
24. Jeremic, A., Kelly, M., Cho, J-H., Cho, S-J., Horber, J.K.H., **Jena, B.P.** (2004). Calcium drives fusion of SNARE-apposed bilayers. *Cell Biol. Int.* (28):19-31.
25. Jeremic, A., Cho, W-J, **Jena, B.P.** (2004) Membrane fusion: what may transpire at the atomic level. *J. Biol. Phys. & Chem.* 4:139-142.
26. Cho, W-J., Jeremic, A., Rognlien, K. T., Zhvania, M.G., Lazrshvili, I., Tamar, B., **Jena, B.P.** (2004). Structure, isolation, composition and reconstitution of the neuronal fusion pore. *Cell Biol. Int.* 28:699-708.
27. Kelly, M., Cho, W-J., Jeremic, A., Abu-Hamdah, R., **Jena, B.P.** (2004). Vesicle swelling regulates content expulsion during secretion. *Cell Biol. Int.* 28:709-716.
28. **Jena, B. P.**, Cho, S-J, Jeremic, A., Stromer, M.H., Abu-Hamdah, R. (2003). Structure and composition of the fusion pore. *Biophys. J.* 84(2):1-7.

29. Jeremic, A., Kelly, M., Cho, S.-J., Stromer, M.H., **Jena, B.P.** (2003). Reconstituted fusion pore. *Biophys. J.* 85:2035-2043.
30. Cho, S.-J., Sattar, A.K.M., Jeong, E.-H., Satchi, M., Cho, J., Dash, S., Mayes, M.S., Stromer, M.H., **Jena, B.P.** (2002). Aquaporin 1 regulates GTP-induced rapid gating of water in secretory vesicles. *Proc. Natl. Acad. Sci. USA.* 99(7):4720-4724.
31. Cho, S.-J., M. Kelly, M., Rognlien, K.T., Cho, J.A., Horber, J.K.H., **Jena, B.P.** (2002). SNAREs in opposing bilayers interact in a circular array to form conducting pores. *Biophys. J.* 83(5):2522-2527.
32. Cho, S.-J., Wakade, A., Pappas, G.D., **Jena, B.P.** (2002). New structure involved in transient membrane fusion and exocytosis. *New York Academy of Science Annals*, 971:254-256.
33. Cho, S.-J., Jeftinija, K., Glavaski, A., Jeftinija, S., **Jena, B.P.**, L.L. Anderson. (2002). Structure and dynamics of the fusion pores in live GH-secreting cells revealed using atomic force microscopy. *Endocrinology* 143(3):1144-1148 **(Cover illustration)** .
34. Cho, S.-J., **Jena, B.P.** (2002). Number of secretory vesicles remain unchanged following exocytosis. *Cell Biol. Int.* 26(1):29-33. **(Cover illustration)**
35. Cho, S.-J., Quinn, A.S., Stromer, M.H., Dash, S., Cho, J., Taatjes, D.J., **Jena, B.P.** (2002). Structure and dynamics of the fusion pore in live cells. *Cell Biol. Int.* 26(1):35-42. **(Cover illustration)**
36. Sattar, A.K.M., Boinpally, R., Stromer, M. H., **Jena, B. P.** (2002). G_{ai3} in pancreatic zymogen granule participates in vesicular fusion. *J.Biochemistry.* 131:815-820.
37. Schneider, S. W., Egan, M. E., **Jena, B. P.** Guggino, W. B., Oberleithner, H., Geibel, J. P. (1999). Continuous detection of extracellular ATP on living cells using atomic force microscopy. *Proc. Natl. Acad. Sci, USA.* 96:12180-12185.
38. Jeong, E.-H., Webster, P., Khuong, C. Q., Sattar, A.K.M.A., Satchi, M., **Jena, B. P.** (1999). The native membrane fusion machinery in cells. *Cell Biol. Int.* 22(9/10):657-670. **(Cover illustration)**.
39. Sritharan, K. C., Quinn, A. S., Taatjes, D. J. and **Jena, B. P.** (1998) Binding contribution between synaptic vesicle membrane and plasma membrane proteins in neurons: An AFM Study. *Cell Biol. Int.* 22(9/10):649-655.
40. **Jena, B. P.**, Webster, P., Geibel, J. P., Van Den Pol., and Sritharan, K. C. (1997). Localization of SH-PTP1 to synaptic vesicles: a possible role in neurotransmission. *Cell Biol. Int.* 21(8):469-476.
41. Schneider, S. W., Sritharan, K. C., Geibel, J. P., Oberleithner, H., **Jena, B. P.** (1997). Surface dynamics in living acinar cells imaged by atomic force microscopy: identification of plasma membrane structures involved in exocytosis. *Proc. Natl. Acad. Sci, USA.* 94:316-321.
42. **Jena, B. P.** ,Schneider, S. W., Geibel, J. P., Webster, P., Oberleithner, H., and Sritharan, K. C. (1997). Gi regulation of secretory vesicle swelling examined by atomic force microscopy. *Proc. Natl. Acad. Sci, USA.* 94:13317-13322.

43. Schneider, S. W., Yano, Y., Sumpio, B. E., **Jena, B. P.**, Geibel, J. P., Gekle, M., and Oberleithner, H. (1997). Rapid aldosterone-induced cell volume increase of endothelial cells measured by the atomic force microscope. *Cell Biol. Int.* 21(11):759-768.
44. **Jena, B. P.**, Gumkowski, F. D., Konieczko, E. M., F. Von Mollard, G., Jahn, R., Jamieson, J. D. (1994). Redistribution of a Rab3-like GTP binding protein from secretory granules to the Golgi complex in pancreatic acinar cells during regulated exocytosis. *J. Cell Biol.* ,124, p43-53.
45. Hippen, K. L., Jakes, S., Richards, J., **Jena, B. P.**, Beck, B. L., Tabatabai, L. B., Guan, K., Pot, B., Woodford, T., Dixon, J. E., Ingebritsen, T. S. (1993). Substrate specificities and mechanisms for substrate selection by three protein tyrosine phosphatases, PTP-5, rrbPTP-1 & rrbLAR. *Biochemistry* , 32:12405-12411.
46. **Jena, B. P.**, Brennwald, P., Garrett, M.D., Novick, P., Jamieson, J.D. (1992). Distinct and specific GAPs in rat pancreas act on the yeast GTP-binding proteins Ypt1 and SEC4. *FEBS Letters.* 309(1):5-9.
47. **Jena, B. P.**, Padfield, P.J., Ingebritsen, T.S., and Jamieson, J.D. (1991). Protein tyrosine phosphatase stimulates Ca²⁺-dependent amylase secretion from pancreatic acini. *J. Biol. Chem.* 266(27):17744-17746.

REVIEWS

48. **Jena, B.P.** (2011) Porosome: the universal secretory portal in cells. [cover] *Biomed. Rev.* 21:1-15.
49. **Jena, B. P.** (2011). Molecular assembly of membrane-associated t-/v-SNARE complex. *Ultramicroscopy* 109:1094-1104.
50. **Jena, B.P.** (2010) Secretory vesicles transiently dock and fuse at the porosome to discharge contents during cell secretion. *Cell Biol. Int.* 34:3-12.
51. **Jena, B.P.** (2009) Functional organization of the porosome complex and associated structures facilitating cellular secretion. [cover] *Physiology* 24:367-376.
52. **Jena, B. P.** (2009). Porosome: the secretory portal in cells. *Biochemistry.* 49:4009-4018.
53. **Jena, B.P.** (2009). Atomic force microscopy: contribution to the birth of NanoCellBiology. *Encyclo. Analy. Chem.* [Ed. R. A. Meyers, John Wiley: Chichester. DOI: 10.1002/9780470027318.a9006. Published 15th September 2009]
54. **Jena, B. P.** (2009). Atomic force microscopy: unraveling the fundamental principles governing secretion and membrane fusion in cells. *Ultramicroscopy* 109:1094-1104.
55. **Jena, B. P.** (2009) Membrane fusion: role of SNAREs and calcium. *Prot. Pept. Res.* 16:712-717.
56. **Jena, B. P.** (2008) Porosome: the universal molecular machinery for cell secretion. *Mol. Cells.* 26: 517-529.
57. **Jena, B. P.** (2007) Secretion machinery at the cell plasma membrane. *Curr. Opin. Struct. Biol.* 17:437-443.
58. **Jena, B. P.** (2006). Cell secretion machinery: studies using the AFM. [cover] *Ultramicroscopy* 106:663-669.

59. Jena, B. P. (2005). Cell secretion and membrane fusion. *Domestic. Animal Endocrinol.* 29:145-165.
60. Jena, B. P. (2005). Molecular machinery and mechanism of cell secretion. *Exp. Biol. Med.* 230:307-319
61. Jena, B. P. (2004). Discovery of the porosome: revealing the molecular mechanism of secretion and membrane fusion in cells. [cover] *J. Cellular & Mol. Med.* 8(1): 1-21.
62. Jena, B. P. (2003). Fusion pore: structure and dynamics. *J. Endocrinology* 176(2):169-174.
63. Jena, B. P. (2003). Exocytosis: new structure for an old function. [cover & back illustration] *Annals of Romanian Society for Cell Biology*, Vol. VII, No. 1, 17-27.
64. Cho, S-J., Jena, B. P. 2003. Aquaporin regulates secretory vesicle swelling. *Annals of Romanian Society for Cell Biology*, Vol. VII, No. 1, 28-39.
65. Jena, B. P. (2002). Fusion pores in live cells. [cover] *News In Physiol.Sci.* 17(6):219-222.
66. Jena, B. P. (2000) Insights on membrane fusion. *Cell Biol. Int.* 24(9/11):769-771.
67. Jena, B.P. (2000) Membrane fusion: machinery and mechanism. *Cell Biol. Int.* 24(9/11):769-839.
68. Jena, B. P. (1997). Exocytotic fusion: total or transient? *Cell Biol. Int.* 21(5):257-259.
69. Jena, B. P. (1997). Atomic force microscope: providing new insights on the structure and function of living cells. *Cell Biol Int.* 21(11):683-684.
70. Jena, B.P. (1997) AFM in the study of live cells. *Cell Biol. Int.* 21(11):677-780.

BOOK CHAPTERS

71. Jena, B.P. (2011) Role of SNAREs in Membrane Fusion. *Adv Exp Med Biol.* 713:13-32. T. Dittmar, K.S. Zänker (eds.), *Cell Fusion in Health and Disease, Advances in Experimental Medicine and Biology* 713, Springer.
72. Jena, B. P. (2011). Understanding cell secretion and membrane fusion processes on the nanoscale. *Life at the Nanoscale: Atomic Force Microscopy of Live Cells* (in press). Edited by Y.F. Duferene, Pan Sanford Publishing Pte. Ltd.
73. Jena, B. P. (2008). Extracellular dynamics at nm resolution in live cells. *Methods in Nano Cell Biology. Methods in Cell Biology.* 90:1-19. Edited by B.P. Jena Academic Press. **(Cover Illustration)**.
74. Jena, B. P. (2008). Intracellular organelle dynamics at nm resolution. *Methods in Nano Cell Biology. Methods in Cell Biology.* 90:20-37. Edited by B.P. Jena Academic Press.
75. Jena, B. P. (2008). Assembly and disassembly of SNAREs in membrane fusion. *Methods in Nano Cell Biology. Methods in Cell Biology.* 90:154-179. Edited by B.P. Jena Academic Press.
76. Jena, B. P. (2008). Understanding membrane fusion: combining experimental and simulation studies. *Methods in Nano Cell Biology. Methods in Cell Biology.* 90:180-195. Edited by B.P. Jena Academic Press.

77. **Jena, B. P.** (2008). Nanoscale imaging and dynamics of amylin-membrane interaction and its implication in type II diabetes mellitus. *Methods in Nano Cell Biology. Methods in Cell Biology*. 90:264-283. Edited by B.P. Jena Academic Press.
78. **Jena, B. P.** (2006). Porosome: the fusion pore revealed by multiple Imaging modalities. *Cell Imaging Techniques in Methods in Molecular Biology* 319:295-316. Edited by D.J. Taatjes and B.T. Mossman, Humana Press **(Cover Illustration)**.
79. Cho, S-J., **Jena, B. P.** (2006). Secretory vesicle swelling by atomic force microscopy. *Cell Imaging Techniques in Methods in Molecular Biology* 319:317-330. Edited by D.J. Taatjes and B.T. Mossman, Humana Press. **(Cover Illustration)**.
80. **Jena, B. P.** (2006). Porosome: the universal secretory machinery in cells. *Force Microscopy: Application in Biology and Medicine* 319:295-316. Edited by B.P. Jena and J.K.H. Hoerber, Wiley & Sons, Inc, **(Cover Illustration)**.
81. **Jena, B. P.** (2006). Molecular mechanism of SNARE-induced membrane fusion. *Force Microscopy: Application in Biology and Medicine* 319:295-316. Edited by B.P. Jena and J.K.H. Hoerber, Wiley & Sons, Inc,.
82. **Jena, B. P.** (2006). Molecular mechanism of secretory vesicle content expulsion during secretion. *Force Microscopy: Application in Biology and Medicine* 319:295-316. Edited by B.P. Jena and J.K.H. Hoerber, Wiley & Sons, Inc,.
83. Anderson, L.L., **Jena, B. P.** (2006). Fusion pores in growth-hormone-secreting cells of the pituitary gland: an AFM study. *Force Microscopy: Application in Biology and Medicine* 319:295-316. Edited by B.P. Jena and J.K.H. Hoerber, Wiley & Sons, Inc,.
84. **Jena, B. P.**, Cho, S-J. (2002) The atomic force microscope in the study of membrane fusion and exocytosis. *Atomic Force Microscopy in Cell Biology. Methods in Cell Biology, Academic Press* 68:33-50.
85. **Jena, B.P.** (1999) Use of atomic force microscopy and optical tweezers in biology. *Microscopy Research and Techniques*. 44(5): 311-386.
86. **Jena, B. P.**, Geibel, J., Schneider, S. W. (1999). Introduction to use of atomic force microscope and optical tweezers in biology. *Microscopy Research and Techniques*. 44(5):311.

BOOKS

87. **Jena, B. P.** (2008) Methods in nano cell biology. *Methods in Cell Biology, Academic Press* 90:1-505. **(Cover: Porosome Complex)**.
88. **Jena, B. P.**, Hoerber, J.K.H. (2006). Force microscopy: application in biology and medicine *Wiley & Sons, Inc.* 1-300. **(Cover: Porosome Complex)**.
89. **Jena, B. P.**, Hoerber, J.K.H. (2002) Atomic force microscopy in cell biology. *Methods in Cell Biology, Academic Press* 68:1-409. **(Cover: Porosome Complex)**.