

CURRICULUM VITAE

SOUMITRA GHOSHROY Ph.D

University of South Carolina

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Citizenship

United States of America

Current Position (2007-present)

Director, Electron Microscopy Center, University of South Carolina, Columbia, SC
Research Professor, Department of Biological Sciences

Education

University of New Hampshire	Ph.D. (Biology)	1993
Illinois State University	MS (Biology)	1988
University of Calcutta, India	M.Sc. (Botany)	1984
University of Calcutta	B.Sc. (Botany, Hons.)	1982

Professional Experience

2001-2007	Research Associate Professor, Biology Director, Electron Microscopy Laboratory, New Mexico State University
1999-2001	Graduate Faculty Member and Research Electron Microscopist New Mexico State University

Post Doctoral Research

1998-99	Application of electron and confocal microscopy and molecular techniques in understanding virus-vector-plant interaction. NSF Research Training Grant Fellowship, Department of Plant Sciences, University of Arizona.
1994-97	Electron microscopic and biochemical characterization of viral movement in higher plants under the supervision of Dr. Vitaly Citovsky, Department of Biochemistry and Cell Biology, State University of New York at Stony Brook.
1993-94	Isolation, biochemical and electron microscopic characterization of gap junctions under the supervision of Dr. Gina Sosinsky at Rosenstiel Basic Medical Sciences Research Center, Brandeis University, Waltham, MA and Dr. Daniel Goodenough, Department of Cell Biology, Harvard Medical School.

Pre Doctoral Research

1988-93	Department of Plant biology, University of New Hampshire Doctoral thesis: An electron microscopic investigation of light detection system in higher plant chloroplasts; pigment mediated or overall photon flux density related. Advisor: Dr. Wayne R. Fagerberg.
1986-88	Department of Biological Sciences, Illinois State University

Master's thesis: Influence of cadmium on ultrastructure of developing chloroplasts in soybean and corn, an electron microscopic study. Advisor: Dr. M. J. Nadakavukaren.

Courses Taught

2010-	Biological Electron Microscopy Biol 690 University of South Carolina
2001-2008	Guest Lectures Cell and Molecular Biology, Department of Biological Sciences STEM course, Department of Biological Sciences Analytical Chemistry University of South Carolina
2004-2006	Guest Lectures Agrosience Technology course, New Mexico State University Forensic Chemistry course, New Mexico State University
1999-2006	Special Topics in Microscopy Biological Electron Microscopy Structure and Function of Plants New Mexico State University, Las Cruces, NM

Graduate Thesis Committee Membership (1999-2009)

New Mexico State University:	Twelve (9 Ph.D., 3 MS)
University of South Carolina:	Three (Ph.D.)
Primary thesis advisor:	One (New Mexico State University)
Undergraduate students mentored:	Three (New Mexico State University) One (University of South Carolina)

Technical know-how/Imaging experience

Biological tissue fixation for electron microscopic study, immunocytochemistry and immunohistochemistry, paraffin and resin embedding techniques, ultramicrotomy and paraffin sectioning, various staining techniques for light microscopy, negative staining, fluorescent labeling and confocal microscopy, fluorescence microscopy, Adobe Photoshop, scanning electron microscopy of biological and materials science specimens and EDS, variable pressure SEM for a wide range of specimens, critical point drying and sputter coating, transmission electron microscopy, light microscopy and digital imaging of animals plants, bacteria, viruses and invertebrates. In addition, over 20 years of experience in various biological specimen preparations for light and electron microscopy, fluorescence imaging and fluorescence labeling. High resolution electron microscopic localization of nanoparticles in plants, bacteria, mammals, and invertebrates. Electron microscopic evaluation of polymer nanocomposites, surface characterization of conductive and non-conductive materials. Production and analysis of electron micrographs for research projects in biological and nanobiological areas, evaluation of experimental procedures in biological and other high resolution electron microscopy related research projects.

Equipment used (1988-2010)

Hitachi H600 120kV TEM, JEOL 100CX 100kV TEM, Hitachi H7000 120 kV TEM, Hitachi 3200N variable pressure SEM, Hitachi 3400N variable pressure SEM, Hitachi H7650 120 kV Biological TEM, Hitachi T1000 Tabletop SEM, Hitachi H8000 200 kV TEM, FEI Quanta200 ESEM, Quanta XL30 ESEM, Zeiss Ultraplus FESEM, Tescan variable pressure SEM, Thermo Fisher EDS system, EDAX Genesis EDS system, Zeiss charge compensator and STEM detector for FESEM system, Bio-Rad MRC 1024 confocal laser scanning microscope, Dupont Sorvall MT2B ultramicrotomes, Reichert Ultracut E Ultramicrotome, Leica UC6 Ultramicrotome, Denton Vacuum Sputter Coater and Turbo Sputter Coater, Ladd Research Critical Point Dryer and multiple CCD cameras for high resolution imaging of biological and nanomaterials.

Microscope maintenance skills

Maintenance of light microscopes, routine axial alignment of light and electron microscopes, aperture and filament replacement of SEMs and TEMs, rotary vacuum pump and chiller maintenance, image and data storage and online instrument reservation management. Routine maintenance of all specimen preparation tools including sputter coater, critical point dryer, ultramicrotomes, and rotary microtomes.

Management Experience

- 1999- 2006 New Mexico State University: Managed and directed a multiuser/multiscope core Electron Microscopy Laboratory equipped with a TEM, two SEMs, a tabletop SEM , a confocal microscope, specimen preparation equipment, staff and students.
- 2007-current University of South Carolina: Managing and directing a core university-wide, multi-user, multi-instrument electron microscopy center equipped with a Hitachi H8000 200kV TEM, a JEOL 2100F 200kV analytical high resolution TEM, a Tescan VPSEM, a Zeiss Ultraplus thermal field emission FESEM, multiple multi-user ancillary instruments for biological and materials specimen preparation. Supervision of a Research Assistant Professor, a senior electron microscopy technologist, two graduate research assistants, and a part time computer administrator, managing Electron Microscopy Center budget, expenditure, staff and student hiring process, large multi-user shared equipment grant funds, equipment purchasing, develop business plan, and coordination of large equipment grant writing effort.

Outreach/Collaboration

Coordinate group tours from local public schools, summer science camps (Richland II school system's Gear Up program), collaborate with USC McKissick Museum, Citizens School for Nanotechnology and Masters Scholars Program in Biotechnology hosted by USC Nanocenter, South Carolina Alliance for Minority Participation (SCAMP) program, Columbia Urban League, State of South Carolina High School Science Fair, high school teachers training program in Nanotechnology hosted by USC Center for Education.

Awards/Grants

- 2012 Diatome poster award (2nd place winner) presented for the posters illustrating the best use of diamond knife ultramicrotomy in either biological or physical sciences. Microscopy and Microanalysis 2012, Phoenix, AZ (second place out of over 450 posters); Sponsored by Diatome, Switzerland
- 2012 Acquisition of a variable pressure Scanning Electron Microscope with remote operation capability (**Awarded**) PI: Ghoshroy
ASPIRE III Research Infrastructure Program, University of South Carolina
\$100,000.00
- 2012 Acquisition of a Leica UC7/FC7 Cryoultramicrotome for cryo ultrathin sectioning (**Funded**)
Sealed Air Corporation, Duncan, SC
\$95,000.00
- 2012 Acquisition of a 200 kV Transmission Electron Microscope for a Core Electron Microscopy Facility (**to be resubmitted in January 2014**); PI: Ghoshroy
Major Research Instrumentation grant proposal, National Science Foundation
\$979,000.00
- 2009 Acquisition of a field emission scanning electron microscope with charge compensation, STEM detector, EBSD and EDS capabilities (**funded to Dr. Richard Webb, Dept. of Physics and USC EM Center**)
College of Arts and Sciences, University of South Carolina
\$640,000.00
- 2005 Acquisition of a New Transmission Electron Microscope, CCD Camera and Ultramicrotome for a Core Electron Microscopy Facility (**Awarded**) PI: Ghoshroy
Major Research Instrumentation grant proposal, National Science Foundation
\$463421.00

2005	A virtual reality framework for bio cell manipulation Bio Sciences Cluster Grant, NMSU (Awarded) \$25,000.00
2001	Research Mini Grant (Awarded) Arts & Sciences Research Center New Mexico State University \$3000.00
1998	NSF Research Training Grant Post Doctoral Fellowship Department of Plant Sciences, University of Arizona, USA
1990	Sigma Xi Scientific Research Society, USA Graduate Student Research Award
1989, 1991	Central University Research Fund, UNH Grant for Doctoral research
1988	Phi Sigma Scientific Research Society, USA Graduate Student Research Grant
1985	University Grants Commission, India Junior Doctoral Research Fellowship

Professional Society Membership

Microscopy Society of America, and Sigma Xi Scientific Research Society (nominated)

Review Panel/Editorial Board Membership

2011-	Journal of Bioprocessing and Biotechniques
2006-present	National Science Foundation Panelist
2004	North Carolina Biotechnology Development Corporation
2001	Ad hoc Grant Proposal Reviewer, United States Department of Agriculture

Publications

1. Alkhatib R., Bsoul E., Blom D., Ghoshroy K., Creamer R. and **Ghoshroy S.** (2013) Microscopic analysis of lead accumulation in tobacco (*Nicotiana tabacum* var. Turkish) roots and leaves. Accepted *J. Microscopy & Ultrastructure*
2. Lin L., Yang Y., Men L., Wang X., He D., Chai Y., Zhao B., **Ghoshroy S.**, and Tang Q. (2013) A highly efficient TiO₂@ZnO n-p-n heterojunction nanorod photocatalyst. *Nanoscale* 5: 588-593
3. Sabo-Attwood T., Unrine J. M., Stone J. W., Murphy C. J., **Ghoshroy S.**, Blom D., Bertsch P. M., and Newman L. (2012) Uptake, distribution and toxicity of gold nanoparticles in tobacco (*Nicotiana xanthi*) seedlings. *Nanotoxicology* 6(4):353-360
4. Alkhatib R., Creamer R., Lartey R. T., and **Ghoshroy S.** (2011) Effect of Lead (Pb) on the Systemic Movement of RNA Viruses in Tobacco (*Nicotiana tabacum* var. Turkish). *Plant Cell Rep*; 30(8): 1427-1434
5. Wu L., Lee A., Niu Z., **Ghoshroy S.**, and Wang Q. (2011) Visualizing Cell Extracellular Matrix (ECM) Deposited by Cells Cultured on Aligned Bacteriophage M13 Thin Films. *Langmuir* 27 (15): 9490–9496
6. Wu L., Zang L J., Lee A., Niu Z., Horvatha G. C., Braxton V., Wibowo A. C., Bruckman M. A., **Ghoshroy S.**, zur Loye H-C., Li X., and Wang Q. (2011) Electrospinning fabrication, structural and mechanical characterization of rod-like virus-based composite nanofibers. *J. Mater. Chem.* 21: 8550-8557
7. Wu L., Tao L., Blom D., Zhao J., **Ghoshroy S.**, and Wang Q. (2011) Synthesis and electron microscopic analysis of the self-assembly of polymer and ferritin core-shell structures. *Microscopy Res. and Tech.* 74:636-641

8. Tao L., Wu L., Suthiwangcharoen N., Bruckman M. A., Cash D., Hudson J. S., **Ghoshroy S.**, and Wang Q. (2009) Controlled Assembly of Rodlike Viruses and Polymer. *Chem. Commun.* 2869-2871
9. Bagwell C. E., Milliken C. E., **Ghoshroy S.**, and Blom D. A (2008) Intracellular Copper Accumulation Enhances the Growth of *Kineococcus radiotolerans* during Chronic Irradiation. *Appl. Envir. Microbiol.* 74: 1376-1384.
10. Lartey R.T., Ghoshroy K., and **Ghoshroy S.** (2008) Association of selective deposition of (1' 3)-²-glucan in floral tissues with restricted movement of turnip vein-clearing virus in *Arabidopsis*: A possible mechanism for non-seed transmission. *Plant Pathology J.* 7(2):120-130
11. Deng S., Upadhyayula V. K. K., **Ghoshroy S.**, Nair V. K., Smith G. B., and Mitchell M. C. (2008) Single-Walled Carbon Nanotubes as Fluorescence Biosensors for Pathogen Recognition in Water Systems. *Res. Lett. in Nanotech.*; Volume 2008 (2008)
12. Upadhyayula V. K. K., Deng S., Mitchell, M. C., Nair V. K, Smith G. B., and **Ghoshroy S.** (2008). Adsorption kinetics of *Escherichia coli* and *Staphylococcus aureus* on single-walled carbon nanotube aggregates. *Water Sc. and Tech.* 58(1): 179–184
13. Lee L.A., Wu L., Bruckman M.A., Niu, Z., **Ghoshroy S.**, Wang Y., and Wang Q. (2008) Modulating cell adhesion and spreading with surfaces coated plant viruses. *Interactive Biology, Invited.*
14. Lartey R.T., Lenssen A.W., Evans R.G., and **Ghoshroy S.** (2007) Comparative structural study of leaf spot disease of safflower and sugar beet by *Cercospora beticola*. *Plant Pathology J* 6(1): 37-43
15. Ortega¹ J. L., Temple S. J., Bagga S., **Ghoshroy S.**, and Sengupta-Gopalan C. (2004) Biochemical and molecular characterization of transgenic *Lotus japonicus* plants constitutively over-expressing a cytosolic glutamine synthetase gene. *Planta* 219(5): 807-818
16. Bagga S., Armendaris A., Klypina N., Ray I., **Ghoshroy S.**, Endress M., Sutton D., Kemp J. D., and Sengupta-Gopalan C. (2004) Genetic engineering ruminal stable high methionine protein in the foliage of alfalfa. *Plant Science* 166(2): 273-283
17. Randall J., Sutton D., **Ghoshroy S.**, Bagga S., and Kemp J. D. (2004) Co-ordinate expression of ² and ¹ zeins in transgenic tobacco. *Plant Science* 167(2): 367-372
18. Waigmann, E., Chen, M.H., Bachmaier, R., **Ghoshroy, S.**, & Citovsky, V. (2000) Regulation of plasmodesmal transport by phosphorylation of tobacco mosaic virus cell-to-cell movement protein. *EMBO Journal* 19: 4875-4884.
19. **Ghoshroy S.** and Citovsky V. (1998) Preservation of plant cell ultrastructure during immunolocalization of virus particles. *Journal of Virological Methods* 74: 223-229.
20. Citovsky V*, **Ghoshroy S***, Tsui F., and Klessig D. (1998) Non-toxic concentrations of cadmium inhibit systemic movement of turnip vein clearing virus by a salicylic acid-independent mechanism. *The Plant Journal* 16(1): 13-20. ***Equal contribution**
21. **Ghoshroy S.**, Freedman K., Lartey R.T., and Citovsky V. (1998) Inhibition of plant viral systemic infection by non-toxic concentrations of cadmium. *The Plant Journal* 13(5): 591-602.
22. Sheng, J., Lartey, R., **Ghoshroy, S.**, and Citovsky, V. (1998) An *Arabidopsis thaliana* mutant with virus-inducible phenotype. *Virology* 249(1):119-128.
23. Lartey R., **Ghoshroy S.**, and Citovsky V. (1998) Identification of an *Arabidopsis thaliana* mutation (vsm1) that restricts systemic movement of tobamoviruses. *Molecular Plant-Microbe Interaction* 11(7): 706-709.

24. **Ghoshroy S.** and Fagerberg W. R. (1998) Light detection in higher plant chloroplasts; pigment mediated or overall photon flux density related. *International Journal of Plant Sciences* 159: 110-115.
25. Lartey R. T., **Ghoshroy S.**, Ho J., and Citovsky V. (1997) Movement and subcellular localization of a tobamovirus in *Arabidopsis*. *The Plant Journal* 12(3): 537-545.
26. **Ghoshroy S.**, Goodenough D.A., and Sosinsky G.E. (1995) Preparation, characterization and structure of half gap junctional layers split with urea and EGTA. *Journal of Membrane Biology* 146: 15-28.
27. **Ghoshroy S.** and Nadakavukaren M. J. (1990) Influence of cadmium on ultrastructure of developing chloroplasts in soybean and corn. *Environmental and Experimental Botany* 30(2): 187-192

Book Chapter

1. Lartey, R.T., **Ghoshroy S.**, Caesar-TonThat, TC., Lenssen, A.W and Evans, R.G. (2009). Relations of *Cercospora beticola* with host plants and fungal antagonists. In: Robert T Lartey, John J Weiland, Lee Panella, Pedro W. Crous and Carol E Windels (eds). *Cercospora Leaf Spot of Sugar Beet*, American Phytopathological Society Press. (In press)
2. **Ghoshroy S.** (2004) Characterization of plant viruses using microscopy techniques. *Emerging Concepts in Plant Health Management*, ed. R.T. Lartey and A. Caesar.
3. Lartey R.T., **Ghoshroy S.**, Sheng J., and Citovsky V. (1997) Transport through plasmodesmata and nuclear pores : cell-to-cell movement of plant viruses and nuclear import of Agrobacterium T-DNA. In *Molecular Aspects of Host-Pathogen Interaction*, ed. M.A. McCrae, J.R. Saunders, C.J.

Review Article

Ghoshroy S., Lartey R.T., Sheng J., and Citovsky V. (1997) Transport of proteins and nucleic acids through plasmodesmata. *Annual Review of Plant Physiology and Plant Molecular Biology* 48: 27-50.

Meeting Proceedings/Abstracts

1. McDaniel E., Chen I., Balogh E., Yang Y., and **Ghoshroy S.** (2013) Structural analysis of plants exposed to Titanium dioxide (TiO₂) nanoparticles Proceedings of the Society of Microscopy and Microanalysis, Indianapolis, IN
2. Ghoshroy K., Cisneros D., Lartey R. T., and **Ghoshroy S.** (2012) Structural analysis of the inhibition of *Pyrenophora teres* by *Laetisaria arvalis*. Proceedings of the Society of Microscopy and Microanalysis, Phoenix, AZ (**2nd place poster award sponsored by Diatome, Switzerland**)
3. Cisneros D., Ghoshroy K., and **Ghoshroy S.** (2011) Imaging Uncoated Plant Seeds with In-lens and Secondary Electron Detectors in a High Vacuum Field Emission SEM. Proceedings of the Society of Microscopy and Microanalysis, Nashville, TN
4. Wu L., Tao L., Blom D., Zhao J., **Ghoshroy S.**, and Wang Q. (2009) High Resolution TEM Imaging and Analysis of the Core-shell Assembly of Ferritin- Poly 4-vinyl Pyridine. Proceedings of the Society of Microscopy and Microanalysis, Richmond, VA (**Selected for MSA Presidential Award to Wu**)
5. Ghoshroy K., Kozlin K. D., **Ghoshroy S.**, Lartey R. T., Szoke K. A., and Szoke K. B. Investigation of Host Range, Infectivity, and Spread of Turnip Vein Clearing Virus and a Possible Mechanism for Non-Seed Transmission. Proceedings of the Annual Meeting of the Association of Southeastern Biologists, Vol 56(3):350, July 2009
6. Al-Khatib R., Zhao J., Blom D., Ghoshroy K., Creamer R., and **Ghoshroy S.** (2008) Microscopic analysis of lead accumulation in tobacco (*Nicotiana tabacum* var. *turkish*) roots. Proceedings of Microscopy and Microanalysis, Albuquerque, NM.

(2nd place poster award in the Biological Applications of Microscopy and Microanalysis category to Al-Khatib)

7. Lartey, R. T., **Ghoshroy**, S., Caesar T., Lenssen, A.W. and Evans, R. G., (2007) Leaf spot of *Cercospora beticola*: A new disease of safflower. Symposium on: New and Emerging Diseases in the Pacific Division Region. Pacific Division, American Phytopathological Society, Boise, ID.
8. Lartey, R. T., **Ghoshroy**, S., Caesar T., Evans, R. G. and Lenssen, A.W. (2007). Biological relations of *Cercospora beticola* with host plants and fungal antagonists. 1st International Symposium on Cercospora Leaf Spot of Sugar Beet. Annual Meeting. American Phytopathological Society, Quebec, Canada.
9. Nair V., **Ghoshroy** S., and Nishiguchi M.K.(2006) Localization and distribution of *Vibrio fischeri* symbionts in *Euprymna tasmanica* light organ affect symbiosis, Microscopy and Microanalysis Annual Meeting, Chicago, IL.
10. Gustafson J.E., Winnett D. C., Katzif S., Zhu K., Girard K.R., Nair V., **Ghoshroy** S., Wilkinson B. J., and Shafer W.M. (2006).House cleaner-tolerant mutants of *Staphylococcus aureus* demonstrate increased resistance to a cathepsin antimicrobial peptide: roles for altered cell wall physiology and *sarA*.. American Society of Microbiology Annual Meeting, Orlando, FL
11. Lartey, R. T., Caesar-TonThat, TC., Sol, N. I. and **Ghoshroy**, S. (2005). Additional evidence of Safflower (*Carthamus tinctorius*) as an alternate host to *Cercospora beticola*. Proceedings, 33rd Biennial Meeting, American Society of Sugarbeet Technologists. **33**:144-150.
12. Lartey, R. T., Sol, N. I. and **Ghoshroy**, S. (2005). Additional evidence of Safflower (*Carthamus tinctorius*) as an alternate host to *Cercospora beticola*. (Abstracts), J. Sugar Beet Research. **42**:52
13. Lartey, R.T., Kersey, S. and **Ghoshroy**, S. (2005). A light and scanning electron microscopic study of progression of *Cercospora beticola* infection in sugar beet and safflower. Abstracts, XII International Congress on Molecular Plant-Microbe Interactions, Merida, México. Book of Abstracts, IS-MPMI. p129.
14. Lartey, R.T., Kersey, S. and **Ghoshroy**, S. (2005). A light and scanning electron microscopic study of progression of *Cercospora beticola* infection in sugar beet and safflower. Abstracts, XII International Congress on Molecular Plant-Microbe Interactions, Cancun, México 33:144-150
15. O'Donnell B., Garrido P., Kersey S., and **Ghoshroy** S. (2004) Structural alteration of *Arabidopsis thaliana* leaf vasculature and restricted virus systemic movement in response to auxin transport inhibition. Microscopy Society of America; Savannah, GA (**Selected for MSA presidential Award to O'Donnell and 2nd place poster award in the Biological Applications of Microscopy and Microanalysis category**)
16. Sanogo S., Carpenter J., and **Ghoshroy** S. (2004) Soil water saturation and infection by *Phytophthora capsici*. The American Phytopathological Society, CA
17. O'Donnell B., Kersey S., Gallegos L., Barrow J., and **Ghoshroy** S. (2003) Black grama grass under the microscope; anatomical features of a native plant from Southwestern United States. Annual Biology Symposium; New Mexico State University
18. Randall J. J., Sutton D., **Ghoshroy** S., Bagga S., and Kemp J. D. (2003) Co-ordinate expression of ² □ and ³ zeins in transgenic tobacco. American Society of Plant Biologists; Honolulu, HI
19. Gallegos, L, Fambrough K.C., Lartey R.T. and **Ghoshroy**, S. (2002) Inhibition of turnip vein clearing virus movement in reproductive structures of *Arabidopsis thaliana*; a microscopic study. Microscopy Society of America; Quebec City, Canada (**Selected for MSA Presidential Award to Gallegos and 1st place poster award in the Biological Applications of Microscopy and Microanalysis category**)

20. Rodriguez-Uribe L, **Ghoshroy S.**, and O'Connell M. (2002) Subcellular localization of a novel transcription factor in watered and drought stressed *Phaseolus acutifolius*. Microscopy Society of America; Quebec City, Canada
21. Fambrough, K.C., and **Ghoshroy, S.** (2001) Drought Induced structural changes in developing chloroplasts of jalapeno pepper (*Capiscum annuum*). Microscopy Society of America; Long Beach, CA
(Selected for MSA Presidential Award to Fambrough)
22. Randall J. J., Kikuta-Oshima L. C., **Ghoshroy S.**, and Kemp J. D. (2001) b/d Zein fusion proteins in transgenic tobacco. American Society of Plant Biologists; Providence, RI
23. Yoste E. M., **Ghoshroy S.**, Brown J. K., and Ghoshroy K. B. (1999) Cloning and expression of the AVI gene of the squash leaf curl geminivirus. Mississippi Academy of Sciences, Tupelo, MS
24. **Ghoshroy, S.**, Freedman K., Lartey R.T., and Citovsky V. (1997) Inhibition of plant viral systemic infection by non-toxic levels of cadmium. Society of Experimental Biology, Canterbury, England and New York Area Plant Molecular Biology Meeting, New York City
25. Sheng J., **Ghoshroy, S.**, and Citovsky V. (1996) Characterization and purification of the P30 kinase, a cell-wall associated protein kinase that phosphorylates the TMV movement protein. International Workshop on Plasmodesmal Biology, Zeckron Yaakov, Israel
26. Lartey R. T., Sheng J., **Ghoshroy, S.**, and Citovsky V. (1996) Virus induced corymb-like inflorescence in Arabidopsis mutants. International Conference on Arabidopsis Research, Norwich, England
27. Perkins G.A., **Ghoshroy, S.**, Goodenough D.A., and Sosinsky G.E. (1996) Three-dimensional structure of the gap junction hemichannel, Biophysical Society
28. **Ghoshroy, S.** and Fagerberg W.R (1992) Light detection in higher plant chloroplasts; an ultrastructural study. New England Society of Electron Microscopy; Woods Hole, MA