

# CURRICULUM VITAE

**Premila N Achar**

Associate Professor , Department of Molecular & Cellular Biology  
Kennesaw State University  
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## EDUCATION

### **Mysore University, Mysore, India:**

- **Ph. D.**, Applied Botany and Biotechnology (1989)
- **M. Phil.**, Seed Pathology (1983)
- **M.S.**, Botany (1982)
- **B.S.**, Botany, Zoology, Chemistry, and Physics (1980)

### **Madurai University, Madurai, India**

- Certificate in Computer Programming (1985)

## PROFESSIONAL EXPERIENCE

**Associate Professor**, Department of Molecular and Cellular Biology,  
Kennesaw State University, Kennesaw, Georgia 2004 - to Present

**Assistant Professor**, Department of Botany  
University of Brandon, Manitoba, Canada 2003-2004

**Program Coordinator, Bioinformatics** 2002-2003  
Canadian Servers College of Business and Technology  
Scarborough, Ontario, Canada

**Professor and Chair**, Department of Microbiology  
University of Durban-Westville, Natal, South Africa 1997-2001

**Associate Professor and Chair**, Department of Microbiology  
University of Durban-Westville, Natal, South Africa 1996-1997

**Senior Lecturer & Acting Chair**, Department of Microbiology  
University of Durban-Westville, Natal, South Africa 1994-1996

**Senior Lecturer**, Department of Microbiology  
University of Durban-Westville, Natal, South Africa 1993-1994

**Lecturer**, Department of Botany  
University of Transkei - Eastern Cape, South Africa 1990-1993

**Teacher** of Biology, Department of Education  
Eastern Cape, South Africa 1986-1990

### MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS

- International Association for Food Protection (IAFP)
- American Society for Microbiology, National (ASM)
- American Society for Microbiology, South Eastern Branch (SEASM)
- Association of South Eastern Biology (ASB)
- Mycological Society of America (MSA)
- American Phytopathological Society (APS)
- Canadian Society for Microbiologists (CSM)

### HONOURS, AWARDS & DISTINCTIONS

- Distinguished Medal, 2015: "In recognition of her brilliant contribution to the field of Biology, particularly, Research work on Mycotoxins, which has been recognized internationally" honored by Dayanand Sagar University (DSU), Bangalore, India.
- KSU Certificates of Recognition, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014. Certificates in recognition for supervision of Directed Study, KSU.
- ABRCM/American Society for Microbiology Judge Award, 2014. Judges award for Annual Biomedical Research Conference for Minority in Molecular Biology and Bioinformatics., St Antonio, Texas, Nov 2014.
- QEP Global Initiative Award, 2014. To lead KSU students for Study Abroad, Global Biotechnology, India and assist participants in Lab Internship at Dayanand Sagar University (DSU), India (\$5000).
- Certificate 2012: "Resource Person for the Training course on "Techniques in Molecular Biology" honored by University Agricultural Sciences (UAS), Bangalore, India.
- QEP International Faculty Development Award, 2012. Development of Transgenic peanuts using genetic engineering- International Collaborative Research at University Agriculture Science, (UAS), Bangalore, India College of Science and Mathematics Program (\$3,500).
- Grant submission Award, 2011. Use of Essential Oil Vapors (EOs) as antimicrobial compounds against *Aspergillus* in peanuts- International Collaborative Research at University of Northampton, England (\$3,000).
- QEP International Faculty Development Program, 2010. Evaluation and Characterization of Essential Oils for Antifungal Activity Against Mycotoxigenic *Aspergillus flavus* and *A. parasiticus* in Peanuts, hosted international scientist, Dr. M. Y. Sreenivasa, University of Mysore, India. At College of Science and Mathematics, (\$3,500).

- UNESCO-ASM Travel Award, 2005. Invited speaker, Title “Molecular diagnosis of *Stenocarpella maydis* in corn and toxicity of diplodia toxin in mice” ICRISAT (International Crops Research Institute for the Semi-Arid Tropics), Hyderabad, India - UNESCO/ ASM (\$890).
- BIORAD Teacher Training, 2012. Workshop for High School Teachers Training in Biotechnology Kit, Dr. PN Achar (PI) -BIORAD (\$579.20).
- BIORAD Undergraduate Training, 2010. To train undergraduate students to detect and control carcinogenic mold in edible peanuts in Georgia using biotechnology tools (\$ 2500).
- CETL- KSU Travel Award, 2005. To attend the 12th American Society of Microbiology, conference for undergraduate Education.
- Nominee, UNESCO/L’Oréal Women in Science (2000)
- Nominee, African Academy of Science for Women in Science (1999)
- University Grant Commission scholarship for M. Phil, Mysore, India (1982)
- University Grant Commission for Ph. D, Mysore, India (1983-1986)
- Merit Awards at the BS – University of Mysore (1980)
- Merit Award - MS- II Rank in the final examinations – University of Mysore, India (1982)
- Merit Award - M. Phil.– II Rank in the final examination – University of Mysore, India (1983)
- Travel and Research Grants, Post-Doctoral Scholarships and Visiting Scientists Awards (NRF, S. Africa)

### TEACHING, SUPERVISION, & MENTORING

#### UNDERGRADUAE COURSES TAUGHT AT KENNESAW STATE UNIVERSITY

1. SCI 1101, Science, Society and Environment I
2. SCI 1102, Science, Society and Environment II
3. BTEC 3301, Introduction to Biotechnology
4. BTEC 4100, Molecular Methods : Study Abroad, Biotechnology
5. BTEC 4490, Special Topic in Biotechnology: Study Abroad, Biotechnology BTEC 4110, Global Biotechnology: Study Abroad, Biotechnology
6. BIOL 2101 , Introduction to Culture and Methods in Biology
7. BIOL 3340, General Microbiology
8. H3000 , Honors Colloquium: Global Warming
9. BIOL 2261, Fundamental Microbiology
10. BIOL 4490 & BIOL 6490- Mycology

## STUDENT SUPERVISION AT KSU

### **MENTORING OF STUDENTS' RESEARCH:**

#### **1. GRADUATE STUDENT (Co- Supervisor DOTORAL) - Fall 2008-2012**

Okule, Grace, M. J. Ikenebomeh and **Achar P.N.** Fall 2008-2012. Effect of Shelf-stability Evaluation of some Local Food Thickening Agents. Benin University, Nigeria.

#### **2. UNDERGRADUATE RESEARCH STUDENTS- Fall 2005-todate:**

1. Petrack, Z. & Achar **P.N.** 2018. Detection of Glucanase and chitinase genes by PCR in transformed peanuts.
2. Crudup, K. & Achar **P.N.** 2018. Expression of Glucanase and chitinase genes by RT-PCR in transformed peanuts
3. Obeh, M. & Achar **P.N.** 2018. Estimation of Pathogen Related proteins (PR) in genetically modified peanuts by SDS-PAGE.
4. Adams, M., H & Achar **P.N.** 2018. Estimation of Pathogen Related proteins (PR) in genetically modified peanuts by Imuno Blot.
5. Zolome, Z., Msimanga, H & Achar **P.N.** 2018. Quantification of Aflatoxin B1 following exposure to selected essential oils.
6. Khorsandi, S., Msimanga, H & **Achar P.N.** 2018. Quantification of Aflatoxin B1 following exposure to selected essential oils.
7. Zolome, Z & Achar **P.N.** 2017. Plant Based Essential Oils as antifungal agents against *Aspergillus parasiticus* in peanuts.
8. Khorsandi, S & **Achar P.N.** 2017. Plant Based Essential Oils as antifungal agents against *Aspergillus flavus* in peanuts.
9. Rilwan, S & Achar **P.N.** 2017. Expression and estimation of Glucanase and chitinase genes by Biochemical assays in transformed peanuts.
10. Roxanne Lazo-Gonzalez & **Achar P.N.** 2017- Agrobacterium-Mediated Transformation and Identification of Pathogen Related Proteins against *Aspergillus flavus* in Peanut
11. Bokanya, G & Achar **P.N.** 2017. Agrobacterium-Mediated Transformation and Identification of Pathogen Related Proteins against *Aspergillus flavus* in Peanuts.
12. Branham P.J. & S. Fekele & Achar **P.N.** 2016 \*. Comparison of Aflatoxin and non aflatoxin producing *Aspergillus* spp. in contaminated peanuts in Georgia, Virginia, New Mexico & N. Carolina.
13. Branham P.J; Khan S., Patel M. & Achar **P.N.** 2016\*. Comparison of aflatoxin region of *A. flavus* and *A. parasiticus* using NOR & VER primers and non aflatoxin region with ITS primers in contaminated peanuts in Georgia.
14. Gilbert Reesheda & **Achar P. N.** 2016\* Quantification of Aflatoxin B1 from *A. flavus* in Georgia Greener Peanuts before and after exposure to Clove Oil.
15. Patel S., Dowuona-Hammond A. and **Achar P.N.** 2016. Agrobacterium Transformation to Develop Transgenic Peanuts Using Glucanase and Chitinase Genes.
16. Pugh, B. and **Achar P.N.** 2015. Biochemical Essay to confirm establishment of Chitinase genes in Transgenic peanuts.

17. Khan, S. and **Achar P.N.** 2015. Biochemical Essay to confirm establishment of Glucanase genes in Transgenic peanuts.
18. Patel S. and **Achar P.N.** 2015. Molecular techniques to detect to detect aflatoxin sequence in *Aspergillus flavus* in peanuts.
19. Hammond, A. D. and **Achar P.N.** 2015. Molecular techniques to detect non- aflatoxin (ITS) sequence in *Aspergillus parasiticus* in peanuts.
20. Gilbert, R. and **Achar, P.N.** 2015. Quantification of Aflatoxin B1 in *Aspergillus flavus* after exposure to Antimicrobial compounds.
21. Patel S. and **Achar P.N.** 2015. Agrobacterium Transformation in peanuts using glucanase gene against *Aspergillus flavus*.
22. Hammond, A. D. and **Achar P.N.** 2015. Agrobacterium Transformation in peanuts using chitinase gene against *Aspergillus parasiticus*
23. Sylla, F. and **Achar P.N.** 2015. Intraspecies variation in *Aspergillus flavus* in peanuts.
24. Opoku, F. and **Achar P.N.** 2015. Intraspecies variation in *Aspergillus flavus* in peanuts.
25. Hosamuddin Obeidat and **Achar P.N.** 2014. Detection of *Aspergillus parasiticus* using microscopy versus Polymerase Chain reaction.
26. Natalie Mellem and **Achar P.N.** 2014. Molecular techniques to study Genetic variation in *Aspergillus flavus* in peanuts.
27. Gilbert, R., P Mungai, and **Achar, P.N.** 2014. Aromatic Essential Oils as Antifungal Agent Against *Aspergillus* species in Georgia Peanuts.
28. Azzam, M and **Achar, P.N.** 2013. Agrobacterium Transformation to develop Transgenic Peanuts Resistant against *Aspergillus*.
29. Patel, E. and **Achar, P.N.** 2012. Development of transgenic peanut via gene manipulation.
30. Strong, J. and **Achar, P.N.** 2012. Determining the Active Ingredient of Cinnamon and Clove Essential Oils as Antifungal Agents Against *Aspergillus flavus* in Peanuts
31. Gilbert, R. and **Achar, P.N.** 2012. Effect of Essential Oils vapors (EOv) *A. flavus* and *A.parasiticus* in Georgia peanuts
32. Mungai, P. and **Achar, P.N.** 2011. Synergistic antifungal activity of some Selected essential oils to control the growth of aflatoxigenic *A.flavus* and *A.parasiticus* in Georgia peanuts
33. Pham Quyen and **Achar, P.N.** 2010. Effect of aromatic plant-based essential oils as antifungal agents against *Aspergillus flavus* in peanuts
34. Youssef, M. and **Achar, P.N.** MY Sreenivasa. 2010. Screening of plant-based essential oils as antifungal agents against *Aspergillus flavus* and *A. parasiticus* in peanuts
35. Helmes, K. and **Achar, P.N.** 2010. Quantification of Aflatoxin B1 in *Aspergillus flavus* by HPLC and Gas chromatography
36. Tabassum, A. and **Achar, P.N.** 2010. Quantitative analysis of *Aspergillus flavus* and *A. parasiticus* by RT- PCR in Florida and Alabama peanuts
37. Smith, P. and **Achar, P.N.** 2009. Quantitative analysis of *Aspergillus flavus* and *A. parasiticus* by RT PCR in Georgia peanuts

38. Metcalf, C. and **Achar, P.N.** 2008. Detection of aflatoxigenic and non aflatoxigenic forms *Aspergillus flavus* and *A. parasiticus* in commercial peanuts
39. Patel, U. and **Achar, P.N.** 2008. Molecular Characterization of aflatoxin and non-aflatoxin form of *A. parasiticus* in peanut.
40. Patel, B. and **Achar, P.N.** 2008 Molecular relatedness in *A. flavus* in peanuts from Georgia, Florida and Alabama. Southeastern Biology, Birmingham
41. Doan, T. and **Achar, P.N.** 2008. Molecular characterization of aflatoxin forms of *Aspergillus flavus* in peanuts.
42. Gamra, I. and **Achar, P.N.** 2008. Changes in total protein content in peanuts due to infection by *Aspergillus flavus*.
43. Berquist, L. and **Achar, P.N.** 2007. Molecular characterization of *Aspergillus flavus* in Georgia peanuts.
44. Khan, S. and **Achar, P.N.** 2007. Detection of Fungal flora in peanut seeds by Conventional methods and Molecular methods.
45. Khan, R. and **Achar, P.N.** 2007. Intraspecies variation in *Aspergillus parasiticus* in peanuts.
46. Brun, C. and **Achar, P.N.** 2007. Molecular Detection of *Aspergillus flavus* in Georgia peanuts.
47. Gustav, G. and **Achar, P.N.** 2007. Biochemical changes due to infection by *Aspergillus flavus* in peanuts.
48. Deaton, T. and **Achar, P.N.** 2006. Intraspecies variation in *Aspergillus* sps. in Peanuts.
49. Wand, J. and **Achar, P.N.** 2006. Molecular characterization of *Aspergillus* sps. in Peanuts by RFLP, PCR –RAPD.
50. Hermetz, K. and **Achar, P.N.** 2005. Histopathological changes in peanut infected by *Aspergillus parasiticus* and *A.flavus*.
51. Ibinjoke, I. and **Achar, P.N.** 2005. Molecular characterization of *Aspergillus* sps. in Peanuts.
52. Sanchez, A. and **Achar, P.N.** 2006 Effect of temperature on growth and production of aflatoxin by *Aspergillus* sps in peanuts.

**DIRECTED STUDY and DIRECTED METHODS (\* YEAR OF PROJECT COMPLETION):**

- |                           |                                  |
|---------------------------|----------------------------------|
| 1. Petrack, Jozef, 2018   | 10. Lazo-Gonzalez, Roxanne, 2017 |
| 2. Crudup Kyrirea, 2018   | 11. Rilwan Solarin, 2017         |
| 3. Obeh Mary, 2018        | 12. Branham Paul Jacob, 2016     |
| 4. Adams Markell, 2018    | 13. Sina Fekele, 2016            |
| 5. Shideh Khorsandh, 2018 | 14. Branham Paul Jacob, 2016     |
| 6. Solome Yawa, 2018      | 15. Mihir Patel, 2016            |
| 7. Shideh Khorsandh, 2017 | 16. Khan Sonaina , 2016          |
| 8. Solome Yawa, 2017      | 17. Gilbert Reesheda, 2016       |
| 9. Bokanya Glodi, 2017    | 18. Pugh, Britany, 2015          |

19. Khan, S. 2015, 2015
20. Hammond, A. D. 2015
21. Gilbert, Reesheda, 2015
22. Patel Shradda, 2015
23. Alfie Dowuona-Hammond 2015
24. Fatoumata Sylla, 2015
25. Frank Opoku, 2015
26. Hosamuddin Obeidat, 2015
27. Mellem Natalie, 2015
28. Gilbert Reesheda, 2014
29. Azzam, Mona, 2013
30. Ekta Patel, 2012
31. Joy Strong ,Summer 2012
32. Resheeda Gilbert, Summer 2012
33. Peris Mungai, 2011
34. Quyen Pham , 2010
35. Youssef Mina, 2010
36. Katy Helmes, 2010
37. Ayesha Tabassum , 2010
38. Preston Smith, 2009
39. Metcalf Christopher, 2008
40. Patel Unati, 2008
41. Patel Bhumi, 2008
42. Doan Tri, 2008
43. Gamra Irene, 2008
44. Berquist Lisa, 2007
45. Khan Sana,2007
46. Khan Rabia, 2007
47. Gallango Brun C, 2007
48. Gustav Galdo, 2007
49. Deaton Thomas, 2006
50. Wand Julia, 2006
51. Hermetz Karen, 2005
52. Ibinjoke Iby, 2005

#### **STUDENT ADVISING AT KSU:**

Approximately 1000 undergraduate students majoring in Biotechnology since 2005 -2016 and over 40/semester in NSF/ LSAMP and NASA programs since 2012-2015.

#### **STUDENT RESEARCH SUPERVISION AT OTHER INSTITUTIONS**

##### **University of Durban Westville, S. Africa:**

##### **B.S. Honors (1990-2001), funded by National Research Foundation (NRF), S Africa, Grant to PN Achar:**

- Supervised approximately 30 B.S. Honors (4 year degree course by course work and research projects)

##### **M.S students supervised and funded by National Research Foundation (NRF), S Africa, Grant to PN Achar:**

1. Badul, J. Control of downy mildew in cabbage using fungicides (1994-1996)
2. Jugmohan, M. Intraspecies variation of *P. parasitica* in *Brassica oleracea* (1994-1996)
3. Chetty, C.C. Histopathology of *P. parasitica* in cabbage by electron microscopy (1995-1997)

##### **Ph.D. students supervised/co supervised and funded by National Research Foundation (NRF), S Africa, Grant to PN Achar:**

1. Xia, Z. Molecular detection of *S.maydis* in maize (1995-1998)- main supervisor & completed
2. Badul, J. Biological Control of *P. parasitica* in *Brassica oleracea* (1996-2000)- main supervisor & completed
3. Jugmohan, M. Microsatellites markers in the detection of *P. parasitica* in *Brassica oleracea* (1996-2001)- main supervisor & completed
4. Chetty, C. C. Transformation in *Brassic*as using *Agrobacterium* (1997-2001)- initiated as main supervisor and left for Canada in 2001

5. Guddera, V. Intraspecies variation in *Stenocarpella maydis* in maize (1997-2001)- initiated as main supervisor and left for Canada in 2001
6. Rao, S., Characterization of diplodiatoxin in maize (1998-2001)- initiated as main supervisor and left for Canada in 2001
7. Babu, S. Regeneration and transformation in cauliflower (1998-2001)- initiated as main supervisor and left for Canada in 2001
8. Ramachandran, N. Regeneration and transformation in broccoli (1998-2001)- initiated as main supervisor and left for Canada in 2001

*Ph.D. program at University of Durban Westville, S. Africa, is a 3-year program, which includes one semester of course work and hands- on lab experience "Learning Research Techniques" and full time research, and submission of a dissertation. Students should show proof of conference presentations at national and international venues and 1-2 publications at the time of submission.*

#### **Common courses I taught to Ph.D. students (1994-2000):**

- DNA techniques, Electron Microscopy and Biostatistics (4 semesters)

#### **Postdoctoral Students (1995-2001), funded by National Research Foundation (NRF), S Africa, grant to PN Achar:**

1. Tiwari, V. K. (India) Ultra structural studies on *Peronospora. parasitica* in Brassicas (1998)
2. Pius, P. K. (India) *Agrobacterium* mediated transformation and plant regeneration in Brassicas (1999)
3. Nelson, R. (India) Use of vesicular arbuscular mycorrhizal fungi as potent biocontrol agent against *P. parasitica* (2000)
4. Shuzhao, L. (China) Characterization of diplodiatoxin in maize (2001-02)
5. Choudhary, A. (U.S) *Agrobacterium* mediated-transformation in Brassicas (2001)
6. Suri, S. S. (Canada) Genetic manipulation of *Brassica* via *Agrobacterium* mediated transformation (2002)

#### **Visiting Scientists Hosted (2010) Funded by KSU:**

Dr. MY Sreenivasa, Dept. of Microbiology, University of Mysore, India- funded by College of Science and mathematics QEP Faculty development program.

#### **Visiting Scientists Hosted (1996-2000), funded by National Research Foundation (NRF), S. Africa:**

Dr. Nashaat, N. IACR-Rothamsted, Hapenden, Hertfordshire, UK. Collaborative research on the downy mildew of *Brassicas* for 4 weeks (1996)

Dr. Peerally, A. University of Mauritius, Mauritius. Collaborative research on the downy mildew of *Brassica* and sugar cane for one week (1999).

Dr. Rahaman, R. IICT, Hyderabad, India. Effect of diplodiatoxin on experimental models including target enzymes for one year (2000)

### **SCHOLARSHIP OF TEACHING; RESEARCH AND CREATIVE ACTIVITY; PROFESSIONAL SERVICE; AND/OR ADMINISTRATION & LEADERSHIP**

#### **PUBLICATIONS**



## Chapter in Book

Achar, P. N., S. Y., Sharma, S., Vasudevan, P., Sharma, V.P. and Verma, M. (2013). *Aspergillus* species, Carcinogenic Mold in Peanuts- A Global Health Threat. Green technologies, Women and Development. Delhi/Angkor Publisher (p) LTD: Book. <http://www.angkorindia.com/>

## Refereed Full Length Articles (\*indicates undergraduate and doctoral students, co-author while at KSU)

### At KSU:

1. P K\*\*, Deepthi B V\*\*, **PN. Achar**, Ganesh T.\*\* and Sreenivasa M Y.\*\* 2017. Antiaflatoxigenic Potential of Cell-Free Supernatant from *Lactobacillus plantarum* MYS44 Against *Aspergillus parasiticus*. *Probiotics and Antimicrobial Proteins*, 9: pp. 1-10.
2. **Achar, P. N.**, Sreenivasa, D. M., \* Quyen, P., \* and Yoossoofa, M. 2016 (in progress for resubmission). Growth & Morphological Alterations of Aflatoxigenic *A. flavus*. Research on *Aspergillus* contamination in peanuts (X ed., vol. 8, pp. 1-2) *Natural Product Communication*: <http://www.naturalproduct.us/index.asp>
3. Okwu, G.I \*\* **P. N. Achar**, M. J. Ikenebomeh, Michael J. and M. Y. Sreenivasa 2013. Studies of food thickeners in Nigeria for the contamination of aflatoxigenic *Aspergillus* species and their detection by PCR. *African J of Biotechnology* Vol. 10 (43), pp. 8641-8646.
4. Naidoo, G.; Naidoo, N and **Achar, P.N.** 2012. Ecophysiological responses of salt marsh grass *Spartina maritima* to salinity. *African Journal of Aquatic Science* Vol 37:1, 81-88.
5. **Achar, PN**, Sreenivasa, MY & \*Galdo, G. 2012. Comparative studies on changes of total soluble proteins and proteases activity in Georgian commercial peanuts contaminated by *Aspergillus flavus*. *Archives of Phytopathology and Plant Protection* Vol 45 (2): 220-227.
6. M.Y. Sreenivasa, Regina Sharmila Dass, M. N. Nagendra Prasad, **P. N. Achar** and G. R. Janardhana. 2011. Assessment of growth inhibiting effect of some plant essential oils on different *Fusarium* species isolated from Indian Sorghum and Maize grains. *Journal of Plant Diseases and Protection (JPDP)* 118 (6): 208-2011.
7. Xia, Z.\*\*, Wu, H. and **Achar, P.N.** 2011. Infection and Ultrastructure of Conidia and Pycnidia of *Stenocarpella maydis* in Maize. *Journal of Food Protection* 74(4):676- 680.
8. Okwu, G\*\*; **P.N. Achar** and Sharma, S.K. 2010. Quantification of aflatoxin B1 in ready-to-use food thickeners in South-east geo-political zone in Nigeria. *African Journal of Microbiology Research* Vol. 4(16), pp. 1788-1793.
9. Naidoo, G.; Naidoo, N and **Achar, P.N.** 2010. Responses of the mangroves *Avicennia marina* and *Bruguiera gymnorrhiza* to oil contamination. *Flora* 205: 357-362.
10. **Achar, P. N.**, K. Hermetz\*, S. Rao, R. Apkarian, J. Taylor. 2009. Microscopic studies on the *Aspergillus flavus* infected kernels of commercial peanuts in Georgia. *Ecotoxicology and Environmental Safety* 72 (8): 2115-2120.
11. Kaliamoorthy, S., Naidoo, G. and **Achar, P. N.** 2008. Micropropagation of *Harpagophytum procumbens* DC- an endangered African medicinal plant. *Biologia Plantarum* 52 (2): 191-194.

12. Naidoo, G., Somaru, R. and **Achar, P. N.** 2008. Morphological and physiological responses of the halophyte, *Odysea paucinervis* (Staph) (Poaceae), to salinity. *Flora* 203 (5): 437-447.
13. **Achar P. N.** and \*Sanchez A. 2006. Effects of substrate and temperature on growth of *Aspergillus flavus* in peanuts from Georgia. *Georgia Journal of Sciences* 64: 76-81.

#### **At other Institutions Doctoral and Post-Doctoral students:**

1. Rao, S. K., **Achar, P. N.** and Rahman, M.F. 2003. Biochemical changes induced in liver and serum of Diplodiatoxin (*Stenocarpella maydis*) treated male and female rats. *Drug & Chem. Toxicol.* 26(4) 231-243.
2. Rahman, M. F., Rao, S. K. and **Achar, P. N.** 2002. Effect of diplodiatoxin (*Stenocarpella maydis*) on some enzymatic profiles in male and female rats. *Ecotoxicology and Environmental Safety* 52:267-272.
3. **Achar, P. N.** 2002. A study of factors affecting embryo yields from anther culture of cabbage (*Brassica oleracea* var. *capitata*). *Plant Cell, Tissue & Organ Culture* 69(2):183-188.
4. Xia, Z. and **Achar, P. N.** 2001. Random amplified polymorphic DNA and polymerase chain reaction markers for the detection of *Stenocarpella maydis*. *Journal of Phytopathology* 149: 35-44.
5. Nelson, R. and **Achar, P. N.** 2001. Stimulation of growth and nutrient uptake by VAM fungi in *Brassica oleracea* var. *capitata*. *Biologia Plantarum* 44(2): 277-281.
6. Shailaja, K. R. and **Achar, P. N.** 2001. Screening and *in vitro* production of diplodiatoxin from the isolates of *Stenocarpella maydis* and its toxigenic effect on bacteria strains. *Indian Journal of Experimental Biology* 39: 1243-1248.
7. Pius, P. K. and **Achar, P. N.** 2000. *Agrobacterium*-mediated transformation and plant regeneration of *Brassica oleraceae* var. *capitata*. *Plant Cell Reports* 19(9): 888-892.
8. Xia, Z. and **Achar, P. N.** 1999. Biochemical changes in cotton infected with *Verticillium dahliae*. *African Plant Protection* 5(1): 59-62.
9. **Achar, P. N.** 1999. Effect of temperature on hyphal growth, conidial production and germination of *Stenocarpella maydis* from maize seeds. *GEOBIOS* 27(1): 3-8.
10. Badul, J. and **Achar, P. N.** 1999. Alterations in biochemical activities in *Brassicac*s by *Peronospora parasitica*. *Journal of Electron Microscopy Society of Southern Africa* 29: 58.
11. Xia, Z. and **Achar, P. N.** 1999. Detection and colonisation of *Stenocarpella maydis* in maize seeds. *Journal of Electron Microscopy Society of Southern Africa* 29: 62.
12. **Achar, P. N.** 1998. Effects of temperature on germination of *Peronospora parasitica* conidia and infection of *Brassica oleracea*. *Journal of Phytopathology* 146: 137-141.
13. Xia Z. and **Achar, P. N.** 1998. Vegetative compatibility groupings of *Verticillium dahliae* from cotton in mainland China. *European Journal of Plant Pathology* 104: 871-876.
14. Badul, J. and **Achar, P. N.** 1998. Screening of *Brassica oleracea* var. *capitata* cultivars against *Peronospora parasitica*. *Seed Science and Technology* 26(2): 385-391.
15. Badul, J., **Achar, P. N.**, and Labuschagne, N. 1998. Treatment of cabbage seeds against bacterial seed-borne diseases using bacteria. *Journal of Electron Microscopy Society of Southern Africa* 28: 46.

16. Chetty, C. C. and **Achar, P. N.** 1998. Response of Brassica species to the downy mildew pathogen, *Peronospora parasitica*. *Journal of Electron Microscopy Society of Southern Africa* 28: 48.
17. Jugmohan, M., Govender V., and **Achar, P. N.** 1998. Homothallism and heterothallism in South African isolates of *Peronospora parasitica* infecting *Brassica oleracea*. *Journal of Electron Microscopy Society of Southern Africa* 28: 49.
18. **Achar, P. N.** 1997. First report of downy mildew disease of rose caused by *Peronospora sparsa* in KwaZulu Natal, Southern Africa. *Plant Disease* 81(6): 695.
19. **Achar, P. N.** 1997. Effect of humidity on hyphal growth, conidial production and germination of *Stenocarpella maydis* from maize seeds. *GEOBIOS* 24: 193-197.
20. **Achar, P. N.** and Naidoo, T. 1997. Effect of *S. maydis* on reducing sugars and starch in *Zea Mays*. *GEOBIOS* 24: 198-202.
21. Badul, J. and **Achar, P. N.** 1997. Microflora of cabbage seeds using scanning electron microscopy. *Journal of Electron Microscopy Society of Southern Africa* 27: 61.
22. Chetty, C. C. and **Achar, P. N.** 1997. Ultrastructure and colonisation of *Peronospora parasitica* on *Brassica oleracea*. *Journal of Electron Microscopy Society of Southern Africa* 27: 62.
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## Conference Presentations

### Refereed Abstracts in Associations' Official Publications (\*indicates undergraduate, \*\*graduate and \*\*\*collaborator/ co-author while at KSU):

1. Fatoumata Y Sylla\* & **Achar, P.N.**, 2015. Analysis of Molecular Relatedness in *Aspergillus flavus* in Peanuts using Polymerase Chain Reaction. Georgia Academy of sciences, (GAS), March 2015 (**refereed**).
2. Natalie Mellem\* & **Achar, P.N.** 2015. Molecular Characterization *Aspergillus flavus* in Peanuts. Georgia Academy of Sciences (GAS), March 2015 (**refereed**).
3. **Achar, P. N.** & Gilbert, R.\* 2014. Plant Based as Antifungal Agent Against *Aspergillus* species in Georgia peanuts, 2014. Louis Stokes Midwest Centre for Excellence (LSMCE), Chicago, Conference proceedings: pg. 45 Oct. 2014, (**refereed**).
4. Mungai P\*, P.N. **Achar** and M.Y. Sreenivasa\*\*\*. 2012. Microscopy study of the effect of essential oils on growth and spore germination of *Aspergillus flavus* in peanuts. Int. Assoc. for Food Protection (IAFP), Providence, P-97, July, 2012 (**refereed & international**).
5. Mungai P.\*, P.N. **Achar** and M.Y. Sreenivasa\*\*\*. 2012. Synergistic Effect of Essential Oils against *Aspergillus flavus* in peanuts. *Georgia Academy of Sciences* Vol. 70 No. 1 pp 20 (**refereed**).
6. Quyen, P.\*, **Achar, P.N.**, & Sreenivasa\*\*\*, M.Y. 2011. Histopathological changes due essential oils, antifungal agents, against *Aspergillus flavus* in peanuts. *Southeastern Biologists*, 58, No. 2.
7. Yoossef, M.\* and **Achar P.N.** 2011 Plant based Essential Oils as antifungal agents against *Aspergillus flavus* in Peanuts. *A. flavus* and *A. parasiticus* in peanuts. *Southeastern Biologists* Vol. 58, No. 2.
8. Smith, P.\* and PN **Achar**. 2010. RT-PCR to Detect and Quantify Aflatoxin producing genes in *Aspergillus flavus* and *A. parasiticus* in Georgia Peanuts. *Southeastern Biology*, 50: pg 11-12.
9. **Achar P.N.** 2010. Detection of toxin and non-toxin forms of *Aspergillus flavus* and *A. parasiticus* by RT-PCR in Georgia peanuts. *Phytopathology*, Vol. 100 (6): S2
10. **Achar, P. N.**, Choudhary\*\*\*, A. and \*Sanchez, A. 2009. Effects of Substrate, Water activity and Temperature on Growth and Aflatoxin production by *Aspergillus flavus* from Commercial Peanuts. *Southeastern Biology*, 56: 341.
11. Patel, U.\* and **Achar, P. N.** 2009. Molecular Characterization of aflatoxin and non-aflatoxin form of *A. parasiticus* in peanut. *Southeastern Biology*, 56: 273.

12. Patel, B.\* and **Achar, P. N.** 2009. Molecular relatedness in *A. flavus* in peanuts from Georgia, Florida and Alabama. *Southeastern Biology*, 56: 342.
13. **Achar, P. N.**, \*Khan, R. and \*Khan, S. 2008. Detection of Fungal Flora in Peanut seeds by Conventional methods and Molecular methods, *American Society for Microbiology*, 108: 59 (**refereed**).
14. Khan, R.\* and **Achar, P. N.** 2008. Intraspecies variation in *Aspergillus parasiticus* in peanuts. *Southeastern Biology*, 55 (3): 319.
15. \*Khan, S. and **Achar, P. N.** 2008. Detection of Fungal Flora in Peanut seeds by Conventional methods and PCR. *Southeastern Biology*, 55 (3): 320.
16. Gallango, Brun C.\* and **Achar, P. N.** 2008. Molecular Characterization of *Aspergillus flavus* in Commercial Peanuts in Georgia. *Southeastern Biology*, 55 (3): 320.
17. **Achar, P. N.** and Xia, Z. 2006. Molecular detection of *Stenocarpella maydis* in S. African corn and biochemical changes induced by diplodiatoxin. *Canadian Society of Microbiologists*, 49: 2 (**refereed**).
18. Hermetz, K.\* and **Achar, P. N.** 2006. Scanning and Transmission Electron Microscopy of *Aspergillus flavus* in Georgia peanuts. *Canadian Society of Microbiologists*, 49: 1(**refereed & international**).
19. **Achar, P. N.** and \*Hermetz, K. 2006. Ultrastructural study of Colonization and Establishment of *Aspergillus flavus* in Georgia peanuts. *American Institute of Biological Sciences*, 56:10 (**refereed**).
20. Hermetz, K.\* and **Achar, P. N.** 2006. Histopathological changes due to infection by *Aspergillus flavus* in peanuts. *Georgia J of Sciences*, 64: 30 (**refereed**).

## PRESENTATIONS

### **Refereed Abstracts in Conference Proceedings** (\*indicates undergraduate, Graduate\*\* and collaborator/ co-author\*\*\* at KSU)

1. Achar P. N.\*, P. QUYEN\*, P. Mungai \*, R. Gilbert\* and M.Y. Sreenivasa\*\*\*. 2017. Investigation of the antifungal potential of novel plant based compounds as biocontrol measure to reduce crop damage by *Aspergillus flavus* and *A. parasiticus* in Georgia peanuts. ISMPP International Conference, Jaipur, India Nov 2017 (**refereed & International**).
2. Braham P.\* & S. Feleke\*. 2016. Comparison of Aflatoxin and non aflatoxin producing *Aspergillus* spp. in contaminated peanuts in Georgia, Virginia, New Mexico & N. Carolina. 102nd Annual Southeastern Branch ASM Conference, University of Alabama, Nov 2016 (**Non-refereed& regional**).
3. **Achar, P. N.** (Author Only) and \*Gilbert R. 2014. Morphological and Ultrastructural Changes Using Essential Oil Vapors Against *Aspergillus flavus* in Georgia Peanuts, Annual Biomedical Research Conference for Minority Students (ABMRC)-San Antonio, Texas, Nov 2014 (**refereed**) (**national**).
4. Patel, E\*. Gowda, M.\*\*\* and **Achar PN.** 2013. Agrobacterium-Mediated Transformation to develop Transgenic Peanuts using Glucanase and Chitinase genes against *Aspergillus flavus* in Georgia peanut. Aflatoxin Research in Peanuts. Asia Congress on Biotechnology Dec, 2013. Asia Congress on Biotechnology (**refereed & International**).
5. **Achar, PN.**, and MY Sreenivasa\*\*\*. 2012. Detection of Aflatoxinogenic forms of *Aspergillus flavus* and *A. parasiticus* in Georgia Peanuts using Multiplex PCR. 112th. American Society for Microbiology (ASM), San Francisco, May 2012 (**refereed & international**).

6. **Achar, P.N.**, MY Sreenivasa\*\*\*, M Youssef\*, and Q Pham\*. 2011. Screening of Essential Oils as Antifungal Agents against *A. flavus* in peanuts. 111<sup>th</sup> ASM 2011 General Meeting, New Orleans, Louisiana, May 2011 (**refereed & international**).
7. \*\*Okwu, G. I., M.J. Ikenebomen\*\*\* and **P.N. Achar** 2011. The Effects of Different Packaging Materials on the Shelf Stability of Food Thickener. 111<sup>th</sup> ASM 2011, General Meeting, New Orleans, Louisiana, May 2011 (**refereed & international**).
8. **Achar, P.N.**, H. Karen\* and G. Naidoo\*\*\*. 2010. *Aspergillus flavus* in Edible Peanuts Confirmed by SEM and TEM International Microscopy congress (IMC 17), Rio de Janeiro, Brazil, Sept 2010 (**refereed & international**).
9. Okwu, G. I.\*\*, M.J. Ikenebomen\*\*\* and **P.N. Achar** 2011. The Effects of Different Packaging Materials on the Shelf Stability of Food Thickener. 111<sup>th</sup> ASM 2011, General Meeting, New Orleans, Louisiana, May 2011 (**refereed & international**).
10. Tabassom,A.\*, Smith, P.\*, and **P.N. Achar** 2010. Detection of toxin and non-toxin forms of *Aspergillus flavus* and *A. parasiticus* by RT-PCR in peanuts. American Phytopathological Society, (APS), Charlotte, Aug 2010 (**refereed & international**).
11. **Achar, P.N.**, Patel, U.\* and\*Doan, T.\* 2009. Detection of Toxin producing *Aspergillus flavus* and *A. parasiticus* in commercial peanuts. American Society for Microbiology. Philadelphia, May, 2009 (**refereed & international**).
12. Galdo, G.\* and **Achar, P. N.** 2008. Biochemical changes in Georgia peanut infected by *Aspergillus flavus*. American Society for Microbiology (ASM), Boston, June 2008 (**refereed & international**).
13. Wand, J.\* and **Achar, P. N.** 2007. Molecular Characterization of *Aspergillus flavus* in Georgia Peanuts Using RAPD and PCR. 84th Annual Meeting of the Georgia Academy of Science (GAS), Albany State University, March, 2007 (**refereed**) (regional).
14. Deaton, T.\* and **Achar, P. N.** 2007. Intraspecies Variation In *Aspergillus flavus* In Georgia Peanuts, 84th Annual Meeting of the Georgia Academy of Science (GAS), Albany State University, March, 2007 (**refereed**) (regional).
15. Akinjobi, I.\* and **Achar, P. N.** 2007. Interspecies variation in three different species of *Aspergillus* in Georgia peanuts. 84th Annual Meeting of the Georgia Academy of Science (GAS), Albany State University, March, 2007 (**refereed**) (regional).
16. **Achar, P. N.** and Sanchez, A\*. 2005. Effect of Environmental Factors on growth and production of toxin by *Aspergillus flavus* and *A. parasiticus* in peanuts. American Society for Microbiology (ASM), June 2-5, Emory University, Atlanta (**refereed**) (national).

### **Refereed Presentations at Conferences with Graduate/Post graduate Students, co-author at other Institutions:**

1. Badul, J. and **Achar, P. N.** 2000. Effect of Bion on *Peronospora parasitica* infected *Brassica oleracea* var. *capitata* cultivars, SASPP, BioY2K, January 23-28, Rhodes University, Grahamstown, South Africa (national).
2. Nelson, R. and **Achar, P. N.** 2000. Physiological and biochemical changes associated with VAM infection in *Brassica oleracea* var. *capitata*. SASPP, BioY2K, January 23-28, Rhodes University, Grahamstown, South Africa (national).



3. Pius, P.K. and **Achar, P. N.** 2000. *Agrobacterium*-mediated transformation and plant regeneration of *Brassica oleracea* var. *capitata*. SASPP, BioY2K, January 23-28, Rhodes University, Grahamstown, South Africa (national).
4. Jugmohan, M. and **Achar, P. N.** 2000. Isolation of microsatellites from *Peronospora parasitica*, a biotrophic fungal pathogen of crucifers. SASPP, BioY2K, January 23-28, Rhodes University, Grahamstown, South Africa (national).
5. Xia, Z. and **Achar, P. N.** 2000. Molecular characterization and detection of *Stenocarpella maydis* in maize. SASPP, BioY2K, January 23-28, Rhodes University, Grahamstown, South Africa (national).
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8. Vijay, G.K. and **Achar, P. N.** 2000. Intraspecies variation in *Stenocarpella maydis* isolates in maize, Symposium on Biotechnology of Plant Protection - application and technology development 25-27 February 2000, Banaras Hindu University, Varanasi, India (international).
9. Nelson, R. and **Achar, P. N.** 2000. First report of vesicular- arbuscular mycorrhizal fungi on Brassica and its effect on the downy mildew disease. Canadian Phytopathological Society and the American Phytopathological Society. June 18-21, 2000. Victoria, BC, Canada (international).
10. Pius, P.K. and **Achar, P. N.** 2000. *Agrobacterium*-mediated transformation and plant regeneration of *Brassica oleracea* var. *capitata*. Canadian Phytopathological Society and the American Phytopathological Society. June 18-21, 2000. Victoria, BC, Canada (international).
11. Xia, Z. and **Achar, P. N.** 2000. Molecular detection of *Stenocarpella maydis* in maize. Canadian Phytopathological Society and the American Phytopathological Society. June 18-21, 2000. Victoria, BC, Canada (international).
12. Jugmohan, M., **Achar, P. N.**, A. Lucas and Edwards, K.J. 2000. Isolation of microsatellites from *Peronospora parasitica*, a biotrophic fungal pathogen of crucifers. Canadian Phytopathological Society and the American Phytopathological Society. June 18-21, 2000. Victoria, BC, Canada (international).
13. Chetty, C.C. and **Achar, P. N.** 2000. *Agrobacterium* mediated transformation and plantlet regeneration in *Brassica oleracea* var. *capitata*. Brassica 2000, September 4-9, 2000, Warwickshire, U.K (international).
14. Jugmohan, M. and **Achar, P. N.** 2000. Isolation of microsatellites from *Peronospora parasitica*, a biotrophic fungal pathogen of crucifers. Brassica 2000, September 4-9, 2000, Warwickshire, U.K (international).
15. Jugmohan, M., Pius P.K. and **Achar, P. N.** 1999. A PCR-based assay for Phylogenetic analysis of *P. parasitica* infecting Brassica species. International conference on Frontiers in Fungal Biotechnology and Plant-pathogen relation, January 16-18, 1999, Osmania University, Hyderabad, India (International).
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18. Chetty, C.C. and **Achar, P. N.** 1999. Organogenesis, somatic embryogenesis and plant regeneration of Brassica species. 9<sup>th</sup> European Congress on Biotechnology, Brussels, Belgium (International).
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20. Xia, Z. and **Achar, P. N.** 1999. Use of RAPD markers for detection of genetic variation in *S. maydis* from South Africa. 9<sup>th</sup> European Congress on Biotechnology, Brussels, Belgium (international).
21. Badul, J. and **Achar, P. N.** 1999. Alterations in biochemical activities in Brassicas by *Peronospora parasitica*. 9<sup>th</sup> European Congress on Biotechnology, Brussels, Belgium (international).
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23. Xia, Z. and **Achar, P. N.** 1999. Detection and colonization of *Stenocarpella maydis* in maize seeds, MSSA30 November - 3 December, University of the Free State, Bloemfontein, South Africa (national).
24. Badul, J., **Achar, P. N.** and Labuschagne N. 1998. Preliminary studies of potential biological control agents against *Peronospora parasitica*. SASPP Congress. 25-28 January. Champagne Sports Resort, Drakensberg, South Africa (national).
25. Ori, A.J. and **Achar, P. N.** 1998. Intraspecies variation of *Stenocarpella maydis* in maize. SASPP Congress. 25-28 January. Champagne Sports Resort, Drakensberg, South Africa (national).
26. Chetty, C.C. and **Achar, P. N.** 1998. Histopathology of *Peronospora parasitica* in *Brassica spp.* SASPP Congress. 25-28 January. Champagne Sports Resort, Drakensberg, South Africa (national).
27. **Achar, P. N.** 1998. Effect of inoculum source, temperature, relative humidity and dew on infection of cabbage by *Peronospora parasitica*. SASPP Congress. 25-28 January. Champagne Sports Resort, Drakensberg, South Africa (national).
28. Jugmohan, M., **Achar, P. N.** and Wingfield, B.D. 1998. Intraspecies variation of South African isolates of *Peronospora parasitica* in *Brassica oleracea*. SASPP Congress. 25-28 January. Champagne Sports Resort, Drakensberg, South Africa (national).
29. Xia, Z., **Achar, P. N.** and Naidoo, G. 1998. Physiological changes induced by *Stenocarpella maydis* in maize. SASPP Congress. 25-28 January. Champagne Sports Resort, Drakensberg, South Africa (national).
30. Jugmohan, M. and **Achar, P. N.** 1998. Effects of germination of *Peronospora parasitica* conidia and infection of *Brassica oleracea*. SASPP Congress. 25-28 January. Champagne Sports Resort, Drakensberg, South Africa (national).
31. Badul, J. and **Achar, P. N.** 1998. Screening of *Brassica oleracea* var. *capitata* cultivars against *Peronospora parasitica*. 25<sup>th</sup> International Seed Testing Congress, April 15-24, Pretoria, South Africa (international).

32. Xia, Z., **Achar, P. N.** and Naidoo G. 1998. Integrated control of *Stenocarpella* ear rot of maize in South Africa. International Conference of Integrated Pest Management (IPM) – Theory and Practice, Developing Sustainable Agriculture, June 15-20, Guangzhou, China (International).
33. Badul, J., **Achar, P. N.** and Labuschagne, N. 1998. Integrated control measure of *Peronospora parasitica* on *Brassica oleracea* var. *capitata*. International Conference of Integrated Pest Management (IPM) – Theory and Practice, Developing Sustainable Agriculture, Guangzhou, China (international).
34. **Achar, P. N.** and Garach, A.R. 1998. Scanning Electron Microscopy of *Aureobasisidium Zeae* in *Zea Mays*. 10<sup>th</sup> Biennial Congress of the S.A. Society of Microbiology, 5- July, International Convention Centre, Durban, South Africa (national).
35. Chetty, C.C. and **Achar, P. N.** 1998. Host Defense Mechanisms of Brassica species to *Peronospora parasitica*. 10<sup>th</sup> Biennial Congress of the S.A. Society of Microbiology, 5- 8 July, International Convention Centre, Durban, South Africa(national).
36. Xia, Z. and **Achar, P. N.** 1998. Detection of *Stenocarpella maydis* in maize seeds. 10<sup>th</sup> Biennial Congress of the S.A. Society of Microbiology, 5- 8 July, International Convention Centre, Durban, South Africa (national).
37. Badul, J., **Achar, P. N.** and Labuschagne, N. 1998. Potential biological control of seed-borne fungal pathogens in cabbage seeds. 10<sup>th</sup> Biennial Congress of the S.A. Society of Microbiology, 5- 8 July, International Convention Centre, Durban, South Africa (national).
38. Govender, V., Jugmohan, M. and **Achar, P. N.** 1998. Homothallism of *Peronospora parasitica* in *Brassica oleracea*. 10<sup>th</sup> Biennial Congress of the S.A. Society of Microbiology, 5 – 8 July, International Convention Centre, Durban, South Africa (national).
39. Laughlin, J. and **Achar, P. N.** 1998. Isolation and purification of diplodiatoxin from *Stenocarpella maydis*. 11<sup>th</sup> Annual Symposium of the KwaZulu-Natal Branch of the South African Society for Microbiology, 9 October, Umgeni Water, Pietermaritzburg, South Africa (regional).
40. Chauke, G. and **Achar, P. N.** 1998. Molecular relatedness of *Stenocarpella maydis* isolates. 11<sup>th</sup> Annual Symposium of the KwaZulu-Natal Branch of the South African Society for Microbiology, 9 October, Umgeni Water, Pietermaritzburg, South Africa (regional).
41. Jugmohan, M., **Achar, P. N.** and Wingfield, B.D. 1997. Intraspecies variation of *Peronospora parasitica* in cultivated brassicas. 35<sup>th</sup> Congress of the Southern African Society for Plant Pathology, Badplaas, South Africa (national).
42. Badul, J. and **Achar, P. N.** 1997. Differential response of chemically treated cabbage cultivars to *Peronospora parasitica*. 35<sup>th</sup> Congress of the Southern African Society for Plant Pathology, Badplaas, South Africa (national).
43. Chetty, C.C. and **Achar, P. N.** 1997. Ultrastructural study of colonization and establishment of *Peronospora parasitica* in cultivated Brassicas. 35<sup>th</sup> Congress of the Southern African Society for Plant Pathology, Badplaas, South Africa (national).
44. **Achar, P. N.** and Govender T. 1997. Effect of humidity on hyphal growth, conidial production and germination of *Stenocarpella maydis* in maize. 35<sup>th</sup> Congress of the Southern African Society for Plant Pathology, Badplaas, South Africa (national).

45. Pillay, R. and **Achar, P. N.** 1997. Cytological changes in *Brassica oleracea* var. *capitata* induced by *Peronospora parasitica*. 35<sup>th</sup> Congress of the Southern African Society for Plant Pathology, Badplaas, South Africa (national).
46. Naicker, M. and **Achar, P. N.** 1997. Seed vigor evaluation and germination tests of *Zea mays* infected with *Stenocarpella maydis* (Berk.). 35<sup>th</sup> Congress of the Southern African Society for Plant Pathology, Badplaas, South Africa (national).
47. Jugmohan, M., **Achar, P. N.** and B.D. Wingfield. 1997. The differential response of Brassica accessions to *P. parasitica*. Brassica 1997. ISHS - CrGC Symposium on Brassicas, Brest, France (international).
48. Badul, J. and **Achar, P. N.** 1997. Response of *P. parasitica* to chemically treated cultivars of *Brassica oleracea* var. *capitata*. Brassica 1997. ISHS - CrGC Symposium on Brassicas, Brest, France (international).
49. Jugmohan, M., **Achar, P. N.** and Wingfield, B.D. 1997. Intraspecies variation of South African isolates of *P. parasitica* in *Brassica oleracea*. 1997. ISHS - CrGC Symposium on Brassicas, Brest, France (international)
50. **Achar, P. N.** 1996. Biochemical changes induced by *P. parasitica* in cabbage. 34<sup>th</sup> Congress of the South African Society for Plant Pathology, University of Stellenbosch, South Africa (national).
51. **Achar, P. N.** and Chetty, C.C. 1996. Production, germination and entry of oospores in cabbage. 34<sup>th</sup> Congress of the South African Society for Plant Pathology, University of Stellenbosch, South Africa (national).
52. Marimuthu, M. and **Achar, P. N.** 1996. The possible involvement of phenylalanine lyase and lipoxygenase in downy mildew resistance in cabbage. 34<sup>th</sup> Congress of the South African Society for Plant Pathology, University of Stellenbosch, South Africa (national).
53. Marimuthu, M. and **Achar, P. N.** 1996. The possible involvement of phenylalanine lyase and lipoxygenase in downy mildew resistance in cabbage. 8<sup>th</sup> International Congress of Molecular Plant-Microbe Interactions. July 14-19, 1996, Knoxville, Tennessee, U.S (international).
54. **Achar, P. N.** 1996. Biochemical changes induced by *Peronospora parasitica* in cabbage. Joint Annual Meeting of the APS/MSA, July 27-31, Indianapolis, U.S.A. (international).
55. **Achar, P. N.** and Chetty, C.C. 1996. Production, germination and entry of *P. parasitica* oospores in cabbage. Joint Annual Meeting of the APS/MSA, Indianapolis, U.S.A (international).
56. **Achar, P. N.** 1995. Tissue culture technique to determine the viability of *Peronospora parasitica* in cabbage. 33<sup>rd</sup> Congress of the South African Society for Plant Pathology, University of the Orange Free State, Bloemfontein, South Africa (national).
57. **Achar, P. N.** and Pooren, N. 1995. Scanning electron microscopy of *Peronospora parasitica* in *Brassica oleracea*. 33<sup>rd</sup> Congress of the South African Society for Plant Pathology, University of the Orange Free State, Bloemfontein, South Africa (national).
58. **Achar, P. N.** and Rabikoosun, Y. 1995. *Stenocarpella maydis* in maize: A light and scanning electron microscopy study. 33<sup>rd</sup> Congress of the South African Society for Plant Pathology, University of the Orange Free State, Bloemfontein, South Africa (national).
59. **Achar, P. N.** and Naidoo, T. 1995. Biochemical changes induced by *Stenocarpella maydis* in *Zea mays*. 33<sup>rd</sup> Congress of the South African Society for Plant Pathology, University of the Orange Free State, Bloemfontein, South Africa (national).

60. **Achar, P. N.** 1995. Tissue culture to determine viability of *Peronospora parasitica* in *Brassica oleracea*. Global Conference on Advances in Research on Plant Diseases and their Management, Rajasthan College of Agriculture and University Campus, Udaipur, India (international).
61. **Achar, P. N.** 1995. Scanning electron microscopical study of *P. parasitica* in *Brassica oleracea*. Global Conference on Advances in Research on Plant Diseases and their Management, Rajasthan College of Agriculture and University Campus, Udaipur, India (international).
62. **Achar, P. N.** 1994. The epidemiology of *Peronospora parasitica* in Transkei. 32<sup>nd</sup> Congress of the South African Society for Plant Pathology, Grain Crop Institute and Department of Electron Microscopy of the University of Potchefstroom, Christiana, South Africa (national).
63. **Achar, P. N.** and Pooren, N. 1994. Scanning electron microscopy of *P. parasitica* in *B. oleracea*. 33<sup>rd</sup> Annual Conference of the Electron Microscopy Society of South Africa, Port Elizabeth, South Africa (national).
64. Ntshanga, K. and **Achar, P. N.** 1993. Reducing sugars and starch in winter cabbage infected by *P. parasitica*. South African Association of Botanists. 19<sup>th</sup> Annual Congress. University of Western Cape, Capetown, South Africa (national).
65. **Achar P. N.** 1993. Preliminary report of the downy mildew fungus in winter cabbage in Transkei (S. Africa). Indian Science Congress Association. 80<sup>th</sup> Annual Session, University of Goa, India (international).
66. **Achar, P. N.** 1992. Hypertrophy in cabbage due to mixed infection by the downy mildew and white rust fungi. South African Association of Botanist. The 18<sup>th</sup> Annual Congress. University of Durban Westville, South Africa (national).
67. Bhat, S. and **Achar, P. N.** 1992. Anatomical Pathology of *P. parasitica* in cabbage. Mycological Society of America (MSA), Portland, U.S.A. (international).
68. Nikolova, R.V. and **Achar, P. N.** 1992. First report of *E. polygoni* in Transkei and peroxidase activity in relation to infection in peas. South African Association of Botanist. 19<sup>th</sup> Annual Congress. University of Western Cape, Capetown, South Africa (national).
69. **Achar, P. N.** 1991. The prevalence of downy mildew in winter cabbage cultivars in Transkei. South African Association of Botanists. The 17<sup>th</sup> Annual Congress, University of Natal, South Africa (national).

**Non Refereed Presentation at Conference/Symposium (\*indicates undergraduate student, co-author at KSU)**

1. Branham, P.\*, Feleke S.\* and **Achar PN**, 2017. Comparison of Aflatoxin and on aflatoxin producing *Aspergillus* spp. in contaminated peanuts. 22<sup>nd</sup> Annual Symposium of Student Scholars, KSU.
2. Gilbert. R.\*, Z. Farley\*; **Achar PN** & Huggins, M., 2016. Ultra-Violet Quantification of aflatoxin B1 and the Fungicidal Effects of Oils on Aflatoxin B1. 21<sup>st</sup> Annual Symposium of Student Scholars, KSU.
3. M. Changela\*, S. Khan, P. Braham\* & **Premila N. Achar**, 2016. Comparison of aflatoxin region of *A. flavus* and *A. parasiticus* using NOR & VER primers and non aflatoxin region with ITS primers in contaminated peanuts in Georgia. 21<sup>st</sup> Annual Symposium of Student Scholars, KSU.
4. Gilbert. R.\* and **Achar PN**, 2015. Morphological and Ultrastructural Changes Due to Essential Oil Vapors Against *Aspergillus* Species in Peanuts, Dept. of Molecular & cellular Biology, Annual Symposium, Fall 2014.

5. Fatoumata Y. Sylla\*, N. Mellem\* & **Premila Achar**, 2015. Molecular characterization of *Aspergillus flavus* & *A. parasiticus* in Peanuts. 10th Annual Fall Symposium & Research Conference, Oct 2015, UGA.
6. Fatoumata Y. Sylla\* & **Premila Achar**, 2015. Molecular Characterization *Aspergillus flavus* in Peanuts. KSU Annual Symposium, April, 2015.
7. Alfie Dowuona-Hammond\*, S.Patel\* & **Achar P.N.** 2015. Agrobacterium Transformation to Develop Transgenic Peanuts Using Glucanase and Chitinase Genes. Dept. of Biology and Physics Annual Symposium, Fall 2014.
8. **Achar, P. N.**, and Gilbert. R.\*, 2014. Morphological and Ultrastructural Changes Using Essential Oil Vapors Against *Aspergillus Flavus* in Georgia Peanuts (Oral Presentation), Dept. Biology and Physics, Annual Symposium-Fall 2014, Nov. 2014.
9. Azzam, M.\* and **Achar P.N.** 2013. Agrobacterium Transformation to develop Transgenic Peanuts Resistant against *Aspergillus*. Peach State Louis Stokes Alliance for Minority participation, NSF/LSAMP conference, Oct 2013.
10. **Achar, P. N.**, Gilbert, R.\* 2013. Antifungal Agent Against *Aspergillus* Species in Georgia Peanuts. Aflatoxin Research in Peanuts. Peach State Louis Stokes Alliance for Minority participation, NSF/LSAMP conference, Oct 2013.
11. Patel, E.\* and **Achar, P.N.** 2012. Development of transgenic peanut via gene manipulation. Peach State Louis Stokes Alliance for Minority participation, NSF/LSAMP conference, Oct 2012
12. \*Mungai P., P.N. **Achar** and M.Y. Sreenivasa- 2012. Synergistic Effect of Essential Oils against *Aspergillus flavus* in peanuts. KSU 15<sup>th</sup> Annual Symposium.
13. Patel, U.\*, Doan, T.\* and **Achar, P. N.** 2009. Molecular Characterization of *A. parasiticus* in Georgia peanuts. KSU 14<sup>th</sup> Annual Symposium.
14. \*Patel, B., \*Doan, T. and **Achar, P. N.** 2009. Molecular relatedness in *A. flavus* in peanuts from Texas, Florida and Georgia. KSU 14<sup>th</sup> Annual Symposium.
15. **Achar, P. N.**, \*Khan, S., \*Khan, R. and \*Akinjobi, I. 2008. Detection of Fungal Flora in Peanut seeds by Conventional methods and PCR. State of Art in Biology (SOTAB), Georgia Centre for Continuing education, University of Georgia, Athens, Georgia. Jan.
16. \*Khan, R. and **Achar, P. N.** 2008. Intraspecies variation in *Aspergillus parasiticus* in peanuts. KSU 13<sup>th</sup> Annual Symposium.
17. \*Galdo, G. and **Achar, P. N.** 2008. Biochemical changes in Georgia peanut infected by *Aspergillus flavus*, KSU 13<sup>th</sup> Annual Symposium.
18. \*Khan, S. and **Achar, P. N.** 2008. Detection of Fungal Flora in Peanut seeds by Conventional methods and PCR. KSU 13<sup>th</sup> Annual Symposium.
19. Gallango, Brun C.\* and **Achar, P. N.** 2008. Molecular Characterization of *Aspergillus flavus* in Commercial Peanuts in Georgia. KSU 13<sup>th</sup> Annual Symposium.
20. \*Schumacher, C. and **Achar, P. N.** 2007. Changes in Protein content of Georgia Peanut infected with *Aspergillus flavus*. KSU 12<sup>th</sup> Annual Symposium.

21. \*Deaton, T. and **Achar, P. N.** 2007. Intraspecies Variation in *Aspergillus flavus* in Georgia Peanuts, KSU 12<sup>th</sup> Annual Symposium.
22. \*Deaton, T. and **Achar, P. N.** 2007. Molecular relatedness in *Aspergillus flavus*, a carcinogenic mold affecting Georgia peanut. Environmental peace KSU, April .
23. \*Wand, J. and **Achar, P. N.** 2007. Rapid and sensitive method to detect carcinogenic mold, *Aspergillus flavus*, in Georgia peanuts. Environmental peace KSU April.
24. \*Galdo, G.\* and **Achar, P. N.** 2007. Changes in nutrient content of Georgia peanut infected with *Aspergillus flavus*, a carcinogenic mold. Environmental Peace, KSU April.
25. \*Akinjobi, I. and **Achar, P. N.** 2006. Interspecies Variation in Three Different Species of *Aspergillus* in Peanuts in Georgia, S. Eastern Branch, American Society for Microbiology, Kennesaw State University, Kennesaw, Georgia.
26. \*Schumacher, C. and **Achar, P. N.** 2006. Changes in protein content of Georgia peanut infected with *Aspergillus flavus*. S. Eastern Branch, American Society for Microbiology. Kennesaw State University, Kennesaw, Georgia.
27. \*Hermetz, K. and **Achar, P. N.** 2006. Infection, Ultrastructural study of Colonization and Establishment of *Aspergillus flavus* in Georgia peanuts. S. Eastern branch, American Society for Microbiology. Kennesaw State University, Kennesaw, Georgia.
28. \*Hermetz, K. and **Achar, P. N.** 2006. Histopathological changes due to infection by *Aspergillus flavus* in peanuts. State of the Art in Biology (SOTAB), University of Georgia, Athens. Jan 26.
29. **Achar, P. N.** 2005. Molecular and Biochemical Characterization of Aflatoxin producing fungi in commercial peanuts in Georgia. Incentive Grant Exhibit, Kennesaw State University. Feb 22 -25.
30. \*Akinjobi, I. and **Achar, P. N.** 2006. Interspecies Variation in Three Different Species of *Aspergillus* in Peanuts in Georgia. National Society for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCCHE) Atlanta, Oct 24.

#### **Non Refereed Presentations at Conference Attended while KSU (Faculty Development):**

1. NSF/ LSAMP Administrators meeting, Chicago, Nov 2014.
2. Biotechnology Symposium on Cancer- 7<sup>th</sup> Annual conference, Georgia State University, Nov, 2009.
3. Georgia Life Science Summit: Main focus on Biotechnology, Georgia World Congress Centre, Oct, 2005.
4. Biotechnology Conference on “Strategic growth industry” of bioscience, Gwinnett Technical College, Lawrenceville, Atlanta, May, 2005.
5. Stepping Up the Plate in Diversity Education: Building an Intercultural Campus, Hosted by KSU, Crown Plaza Atlanta, March 17-18, 2005.
6. Women’s Programming: Mentoring and Leadership. KSU Centre, Kennesaw, March 16, 2005.
7. Full Bright Faculty Scholarship, Emory University, March, 3 2005.

8. State of Art in Biology (SOTAB), Georgia Centre for Continuing education, University of Georgia, Athens, Georgia. Jan 21-22, 2005.
9. SOTAB, Georgia Centre for Continuing education, University of Georgia, Athens, Georgia. Jan 21-22, 2006.
10. GLOBAL ETHICS: Crossing Borders, Joining Hands, Kennesaw State University Student Centre, Kennesaw, Georgia. Oct 24-26, 2004.
11. FILLING THE GAP, Georgia Life Science Summit, Georgia World Congress Center, Atlanta., Georgia. Sep 22, 2004.

## GRANTS AND CONTRACTS

### EXTERNAL FUNDING

#### Sub awards funded in partner with other institutions in the USGS system:

##### 1. NSE/LSAMP (Louis Stokes Alliance for Minority Participants), 2011-2014

Dr. A Lester (PI), Dr. PN Achar (Co-PI), Dept. of Biology and Physics, Strengthening the STEM Pipeline in the Peach State: Recruitment, Retention and research (LSAMP Initiative) - (\$100,000, sub-award/annum to KSU based on progress & granted to UGA, \$5 million as Lead institution (2011-2014).

##### 2. Renewal of NSE/LSAMP (Louis Stokes Alliance for Minority Participants) based on progress, 2014-2015

Dr. PN Achar (PI) & Dr. M Griffin (Co-PI), Dept. of Biology and Physics, Strengthening the STEM Pipeline in the Peach State: Recruitment, Retention and research (LSAMP Initiative) (\$100,000, subaward/annum to KSU based on progress (2014-2015); Budget Renewal based on progress annually).

##### 3. Renewal of NSE/LSAMP (Louis Stokes Alliance for Minority Participants) based on progress, 2015-2016

Dr. PN Achar (PI) Dept. of Molecular and Cellular Biology & Dr. Rashaad Jones (Co-PI), Dept. of Computer Science, South campus, Strengthening the STEM Pipeline in the Peach State: Recruitment, Retention and research (LSAMP Initiative) (\$100,000, subaward/annum to KSU based on progress (2015-2016); Budget Renewal based on progress annually).

##### 4. NASA GEORGIA SPACE GRANT CONSORTIUM (GSGC)

Lester, A. (Principal) & Achar, P.N. (Co-PI). NASA Pre-college STEM Enrichment, Leadership and NASA Fellows, Georgia Space Grant Consortium, NASA \$64,955.31 (Aug 2011- Aug 2014).

Achar, P. N. (PI) & Joffe, D. N. (Co-PI), "KSU NASA Applied Leadership Program," Funded, Sponsored by Georgia Institute of Technology, Federal, \$11,999. 54 (Aug 13, 2014 - Aug 12, 2015).

Achar, P. N. (PI) & Joffe, D. N, "KSU NASA Fellows Program," Funded, Sponsored by Georgia Institute of Technology, Federal, \$3,000 (Aug 13, 2014 - Aug 12, 2015).



**Achar, P. N. (PI) & Joffe, D. N** "KSU NASA Pre-college STEM Enrichment," Funded, Sponsored by Georgia Institute of Technology, Federal, \$8,026.81 (**Aug 13, 2014 - Aug 12, 2015**).

**Achar, P. N. (PI) & Joffe, D. N. (Co-Principal)**, "KSU NASA Applied Leadership Program," Funded, Sponsored by Georgia Institute of Technology, Federal, \$7,500 (**Aug13, 2015 - Aug 12, 2016**).

**Achar, P. N. (PI) & Joffe, D. N** "KSU NASA Pre-college STEM Enrichment," Funded Sponsored by Georgia Institute of Technology, Federal, \$6,000 (**Aug 13, 2015 - Aug 12, 2016**).

**Achar, P. N. (PI) & Joffe, D. N. (Co-Principal)**, "KSU NASA Applied Leadership Program," Funded Sponsored by Georgia Institute of Technology, Federal, \$ 9,061 (**Aug, 2016 - Aug 12, 2017**).

**Achar, P. N. (PI) & Joffe, D. N** "KSU NASA Pre-college STEM Enrichment," Funded Sponsored by Georgia Institute of Technology, Federal, \$ 9,706 (**Aug 13, 2016 - Aug 12, 2017**).

**Achar, P. N. (PI) & Joffe, D. N. (Co-Principal)**, "KSU NASA Applied Leadership Program," Funded Sponsored by Georgia Institute of Technology, Federal, \$ 9,940.00 (**July, 5 2017 - July 6, 2018**).

**Achar, P. N. (PI) & Joffe, D. N** "KSU NASA Pre-college STEM Enrichment," Funded Sponsored by Georgia Institute of Technology, Federal, \$ 9,945.00( **July 5 , 2017 - July, 2018**).

**Proposals Submitted & Funded by National Research Foundation NRF) & other agents, S. Africa as PI (at other institutions):**

1. Downy mildew of winter cabbage, University Grant, University of Transkei, S. Africa, **\$25,000** (1990-1993).
2. A preliminary investigation on the powdery mildew of peas, University Grant, University of Transkei, S. Africa, **\$25,000** (1991-1994).
3. Diplodia ear rot in maize, University of Durban-Westville research grant, S. Africa, **\$5,000** (1993-1996).
4. Studies on the ear rot of maize by *D. maydis* and *D. macrospora*, University of Durban-Westville research grant, S. Africa, **\$10,000** (1994-1996).
5. Characterization of *P. parasitica* in Brassicas and *S. maydis* in maize. University of Durban-Westville research grant and Industrial Research Development Plan Research Grants, **\$20,000** (1997-2001).
6. Studies on the epidemiology of eyespot of maize, University of Durban-Westville research grant, **\$5,000** (1997-2001).
7. Molecular relatedness in *Stenocarpella maydis* in maize. University of Durban-Westville research grant, **\$5,000** (2000-2003).
8. Downy mildew project in cabbage. **Achar, P.N.** National Research Foundation (NRF) and University research grants, S. Africa, **\$10,000/annum** (1993-1996).
9. Characterization of *Peronospora parasitica* in Brassicas. **Achar, P. N.** National Research Foundation (NRF), S. Africa, **\$20,000** (1997-2001).
10. Characterization, isolation and purification of diplodiatoxin in maize. **Achar, P. N.** Medical Research Council of S. Africa (MRC), **\$25,000** (1997-2000).

11. Detection/ characterization of *Stenocarpella maydis* and diplodiatoxin in maize. **Achar, P. N.** Maize Trust of South Africa and the Human Resources and Industry Program (THRIP), \$15,000 (2000-2003).
12. Use of VAM fungi as potent biocontrol agent against *P. parasitica*. **Achar, P. N.** NSF, S. Africa, \$55,000 (1999).
13. *Agrobacterium* mediated transformation and plant regeneration in *Brassic*as. **Achar, P. N.** National Research Foundation (NRF), S. Africa, \$55,000 (1998).
14. Characterization of diplodiatoxin in maize. **Achar, P. N.** National Research Foundation (NRF), S. Africa. \$55,000 (2000).
15. Genetic manipulation of *Brassica* via *Agrobacterium* mediated transformation. **Achar, P. N.** National Research Foundation (NRF), S. Africa, \$55,000 (2000).
16. Effect of diplodiatoxin on experimental models including target enzymes. National Research Foundation (NRF), S. Africa, \$55,000 (2000).

**External Grants National Research Foundation (NRF), S. Africa for Equipment as PI (at other institutions):**

- Minor Equipment for Downy Mildew Research Lab, \$28,000.
- Environment control Growth Room for Regional use, \$20,000.
- Thermocycler for graduate students, \$8,000.

**External Grant funded by National Research Foundation (NRF), S. Africa for Graduate Students Scholarship as PI (at other institutions):**

- BS Honors, 30 students @ \$1,000 per student, \$30,000.
- MS, 3 students @ \$2,000 per student, \$6,000.
- PhD, 8 students @ \$3,000 per student, \$24,000.
- Post-doctoral, 6 associates @ \$5, 500 per associate, \$33,000.
- Visiting Scientists, 3 Scientists @ \$8, 000 per Scientist, \$24,000.

**Competitive Contracts as PI (at other institutions):**

1. Molecular characterization of *Peronospora parasitica* in *Brassica oleracea*. Internship for MS student, M Jugmohan, at University of Orange Free State, S. Africa (funded by UNESCO/BIOTECH Program), 1997.
2. Microsatellite for detecting molecular relatedness in *Peronospora parasitica* isolates. Internship for doctoral student, M Jugmohan, at ICAR, Long Ashton, U.K. (funded by NRF and UNESCO), Oct – Dec, 1998.
3. Electron Microscopy studies in *Peronospora parasitica* in *Brassica oleracea*. Internship for MS student CC Chetty, at Indian Institute of Science (IISc), Bangalore, India (funded by NRF), Oct- Dec 1999.
4. Biocontrol of *Peronospora parasitica* in *Brassica oleracea*. Internship for MS student, J Badul, at University of Pretoria, S. Africa (funded by NRF) 1998- 1999.

**INTERNAL FUNDING AWARDED AT KSU**

## Research Proposals Submitted; awarded as PI (at KSU):

1. Molecular characterization of Aflatoxin producing fungi in commercial nuts and its effect on experimental models. **Start-up** funds, KSU, **\$10,000** (2004).
2. Molecular characterization of Aflatoxin producing fungi in commercial nuts and its effect on experimental models. **Incentive grant**, KSU, **\$5,000** (2004).
3. Molecular and Biochemical Characterization of Aflatoxin producing fungi in commercial peanuts in Georgia. **Incentive grants**, KSU **\$8,000** (2005).
4. Histopathological Changes due to infection by *Aspergillus* species in peanuts. **Mentor-Protégé Program**, College of Science and Mathematics, Kennesaw State University, **\$2,500** (2004-2005).
5. Interspecies Variation in Three Different Species of *Aspergillus* in peanuts. **Mentor-Protégé program**, College of Science and Mathematics, Kennesaw State University, **\$2,500** (2006-2007).
6. Estimation of protein in peanuts infected by *Aspergillus flavus*. **Mentor-Protégé program**, College of Science and Mathematics, Kennesaw State University, **\$3,000** (2007-2008).
7. Real Time Polymerase Chain Reaction (RT-PCR) to differentiate aflatoxin producing *Aspergillus* sps. in peanuts from peanut growing States. **Mentor-Protégé program**, College of Science and Mathematics, Kennesaw State University, **\$2,200** (2009-2010).
8. Mycological studies on plant based essential oils as antifungal agents against aflatoxigenic *Aspergillus flavus* in peanuts. **Mentor-Protégé program**, College of Science and Mathematics, Kennesaw State University, **\$3,200** (2010-2011).
9. Synergistic Effect of Essential Oils Against *A. flavus* and *A. parasiticus* and their use as Peanut Seed Protectant. **Mentor-Protégé program**, College of Science and Mathematics, Kennesaw State University, **\$3,500** (2011-2012).
10. Molecular and Biochemical Characterization of Aflatoxin producing fungi in commercial peanuts in Kennesaw. **SALT program**, Kennesaw State University, Student Assistantship: **100 hours** (Nov 2004 - June 2005).
11. Detection and differentiation of aflatoxin-producing and non-producing isolates of *Aspergillus flavus* and *Aspergillus parasiticus* using Multiplex and real-time polymerase chain reaction. **SALT program**, Kennesaw State University, Student Assistantship: **100 hours** (Nov 2005- June 2006).
12. Estimation of Protein, Starch and Related enzyme activities due to infection by *Aspergillus flavus* in Georgia peanuts. **SALT program**, Kennesaw State University, Student Assistantship: **100 hours** (Nov 2007- June 2008).
13. Multifactorial effect of temperature, water activity and media on growth of *Aspergillus flavus* and production of aflatoxin in Georgia peanuts. **SALT program**, Kennesaw State University, Student Assistantship: **100 hours** (Nov 2008-2009).
14. Real Time Polymerase Chain Reaction (RT-PCR) to differentiate aflatoxin producing *Aspergillus* sps in peanuts from peanut growing States. **SALT program**, Kennesaw State University, Student Assistantship: **100 hours** (Nov 2009-2010).

15. Antifungal Activities of Essential oils on the Growth and germination of *A. flavus* and *A. parasiticus* in Georgia peanuts. **SALT program**, Kennesaw State University, Student: **100 hours** (Nov 2011-2012).
16. Molecular Characterization of *Aspergillus* sps. and Environmental factors affecting Aflatoxin production in Georgia peanuts. College of Science and Mathematics, **Summer Research Grant**, Kennesaw State University, **\$4,500** (Summer 2006).
17. Evaluation and Characterization of Essential Oils for Antifungal Activity Against Mycotoxigenic *Aspergillus flavus* and *A. parasiticus* in Peanuts, jointly with Dr. M. Y. Sreenivasa, University of Mysore, India and Dr. K. A. Naidu, Central Food Technological Research Institute, India. College of Science and Mathematics, CSM 2009-2010. **QEP International Faculty Development Program**, **\$3,500** (2010)
18. Use of Essential Oil Vapors (EOs) as antimicrobial compounds against *Aspergillus* in peanuts- International Collaborative Research at University of Northampton, England, **Grant submission Award**, **\$3,000** (2011).
19. Development of Transgenic peanuts using genetic engineering- International Collaborative Research at University Agriculture Science, (UAS), Bangalore, India College of Science and Mathematics, **QEP International Faculty Development Program**, **\$3,500** (2012).
20. Lab Internship at Dayanand Sagar Institute (DSI), Study Abroad students, Global Biotechnology, India: **QEP International Faculty Development Program**, **\$5,000** (2014).
21. Study abroad participants, Global Biotechnology, India 2015; NSF/LSAMP Travel award **\$12,000** (2015).
22. Expression of Disease Resistance Genes in Genetically modified Peanuts. Mentor-Protégé program, College of Science and Mathematics, Kennesaw State University, **\$3,900** (2017-2018).

## PROFESSIONAL SERVICE

### AT KENNESAW STATE UNIVERSITY

- Member Planning Committee- Year of India 2017-2018 and Conference Committee member- "First Cities, Cool Cities, Smart Cities: Urban Ecologies in India", an event at the Year of India.
- Chair, Conference Logistic Committee - CHINDIA 2016, Annual Summit India China America (ICA), KSU, 2016.
- Faculty Advisor Students Association- "Crying Sky's Ambassadors (CSA)", Fall 2016-current.
- Founder and President Indian Faculty Staff Association (IFSA), KSU (2010, 2013- 2015).
- Faculty Advisor- KSU STEM Scholars Association (2011-2014).
- Faculty Advisor- Indian Cultural Exchange (ICE)-2012, 2013-2014.
- Ad hoc Committee Reviewer, Division of Global Affairs, KSU- Review the Global Engagement Certification- Nov-Dec 2014.
- Conference Host- The NSF/LSAMP Annual Symposium, Hilton, Marietta, Georgia, Oct 2013; hosted the graduate night at KSU and conference was Co-hosted by SPSU.
- Committee member, Education and Scholarship team, KSU Diversity committee (2007-2008).

- Invited team member, USG faculty development seminar to India (2005).
- Program Director, Study abroad, Global Biotechnology, India (2005-present).
- Program Director, Study abroad, Global Biotechnology, France (2009).
- Advisor, South Asian Student Association (SASA) (2007-2008).
- Advisor, Indian Cultural Exchange (ICE) (2009-present).
- Vice president, Indian Faculty and Staff Association (IFSA) (2009-2010).

### **College:**

- Program Campus Director-NASA/GSGC (Georgia Space Grant Consortium) (2011-current)-STEM Enrichment for K12 and Leadership Enhancement for College students.
- Program Campus Director- Middle and High schools Summer Science Academy (SSA) sponsored by NASA/Georgia Space Consortium and NSF/LSAMP grant for STEM and LSAMP scholars (2011-2015).
- Program, Campus Director following Co- Director, NSF/LSAMP program (2012-2015)
- Program Campus Director following Co-Director, NASA/ Georgia Space Grant Consortium program (2012-todate)
- CSM Student Success Task Force (2012).
- Faculty search committee member, Chemistry Chair (2005-06).
- Diversity committee member, College of Science and Mathematics (2005).

### **Department:**

- Committee Member, BCP3, Department Curriculum (2013-2014)
- Ad hoc Committee member, Curriculum Review (2013)
- Committee Member, BCAC Department Course Assessment (2013-2014)
- Member of Department's T&P (Tenure and Promotion) (2010).
- Task force committee member, Masters in Integrative Biology (Fall 2009-2012).
- Chair, Novel Experience in Work and Training (NEWT) (2008-2010).
- Committee member, NEWT (2005-06).
- Faculty search committee member, Industrial Microbiology (2005).
- Faculty search committee member, Biotechnology and Microbiology (2004-05).

### **AT OTHER UNIVERSITIES:**

- **Chair, Department of Microbiology**, University of Durban-Westville, S. Africa (1996 - 2001).
- **Acting Chair, Department of Microbiology**, University of Durban-Westville, S. Africa (1994- 1996).
- **Senate Member**, University of Durban-Westville, S. Africa (1994-2001).
- Member, Resolution Committee, Conference on the Frontier of Biotechnology, University of Durban-Westville, S. Africa (1999).
- Member, Strategic Planning Committee, Faculty of Science, University of Durban-Westville, S. Africa (1997-2001).
- **Executive Committee Member (EXCO)**, University of Durban-Westville, Faculty of Science, S. Africa (1996-2001).

## THE PROFESSION

- Journal of Science and Technology, University of Mauritius, member, editorial board, 2001- 2005.
- Asian Journal of Plant Pathology, Board Member, 2006 -2009.
- European Journal of Plant Pathology, Board member, 2003-2004.
- Current Science, Editorial, Dec 2006.
- Plant Disease, Editorial, May 2005.

### **Associate Editor of Journal:**

- Associate Editor of 3Biotech, 2017 (**International Journal**).
- The International Journal of Science Research (2010); Tumkur University, India

### **Manuscript Reviewer & Book Chapter Review:**

#### **Reviewer**

- Study of the Effect of Different Factors on Growth of *Aspergillus terrus* and *Penicillium* Fungi That Isolated from Apple Fruits" (Ms\_MRJI\_327750). Microbiology Research Journal International, 2017 (**International Journal**).
- Bioactive profile, free radical scavenging potential, DNA damage protection activity and mycochemicals in *Aspergillus awamori* (MTCC 548) extracts: A Novel Report on filamentous fungi, R. Kumar Salar (BITC-D-17-00239), 3Biotech, 2017 (**International Journal**).
- Effect of  $\gamma$ -irradiation on fumonisin producing *Fusarium* associated with animal and poultry feed mixtures. B. V. Deepthi1, A. P. Gnanaprakash, M. Y. Sreenivasa1 (BITC-D-17-00156), 3Biotech, 2017 (**International Journal**).
- Influence of different processing techniques on aflatoxin levels in millet (*Pennisetum typhoideum*), (Ms\_BMRJ\_26943-Revised-1.rtf), British Microbiology Research Journal, 2016 (**International Journal**).

- Characterization of non-aflatoxigenic strains of *Aspergillus flavus* as potential biocontrol agent for the management of aflatoxin contamination in groundnut, 2015. H. M. Navyaa, J. Naveena, P. Hariprasadb, S. R. Niranjanaa (ID wmj-2015-05-1925), World Mycotoxin Journal, 2015 (**International Journal**).
- *Stenocarpella maydis* and *S. Macrospora* from Perdue University. Plant Disease, 2014 (**International Journal**).
- Induction of Resistance against Fusarium wilt in Tomato plants by the Application of *Paecilomyces variotii*, Crop Protection, 2013 (**International Journal**).
- Infection processes of *Ascochyta anemones* on leaves of windflower (AJMR-12-666), African Journal of Microbiology, 2012 (**International Journal**).
- Inhibiting *Aspergillus flavus* growth and degrading aflatoxin B1 by combined microbes (AJB-12-2088), African Journal of Biotechnology, 2012 (**International Journal**).
- Effect of different corn storage conditions on fungal occurrence, *Aspergillus flavus* population and aflatoxin production, 2012. Y. A. Y. Gibriel, A. S. Hamza, S.M. Mohsen and F.I. Morsy, (OJSST) ID:1480041, Open Journal of Safety Science and Technology, 2012 (**International Journal**).
- Niranjana Raj, S., Lavanya, S.N., Reddy, M.S., and Shetty, H.S. 2010. Accumulation of transcripts of defense enzymes involved during rhizobacteria mediated induced resistance against pearl millet downy mildew disease. Journal of Phytopathology: [Doc8622568-122749983](#) JPHY-10-319 (**International Journal**).
- Lavanya, S.N., Chandra Nayak, S., Niranjana Raj, S. Udaya Shankar, A.C., Amruthesh, K.N., Niranjana S.R. and Shetty, H.S. 2010. Mandipropamid – an effective oomycetocide for management of pearl millet downy mildew caused by *Sclerospora graminicola*. J of Phytopathology [Doc8558522-123324968](#) ID JPHY-10-334 (**International Journal**).
- Zhengjun, X. et al. 2007. An Integrated High-density Linkage Map of Soybean with RFLP, SSR, STS, and AFLP Markers Using a Single F<sub>2</sub> Population. DNA Research, 14: 257–269 (**International Journal**).
- Zhengjun, X. et al. 2009. A novel manual pooling system for preparing three dimensional pools of a deep coverage soybean bacterial artificial chromosome library. Molecular Ecology Resources, 9: 516–524, (**International Journal**).
- Raveesh, S. et al., 2007. Juliflora vizole, a novel antifungal alkaloid from *Prosopis juliflora*. Current Science (Ref. SC 2245) (**International Journal**).
- Eken, C. First report of *Pithomyces chartarum* on *Bromus inermis* in Nebraska, United States. Plant Disease (DOI: 10.1094/PD-89 00000) (**International Journal**).
- Review Article: Oomycete Elicitors: Novel Prospects for Recognition Based Resistance Responses and Phytoprotection Strategies in Crop Plants- Sharath R and Achar PN (In progress).

#### Reviewer/Referee/focus group for International Organizations:

#### Referee

- Evaluation of membership's application for The World Academy of Science (TWAS), applicant- Prof Gokare Ravishankar, Dayanand Sagar University (DSU), India, nominated for election into the Membership of the World Academy of Science, 2015 (**International**).

## Grant Reviewer

- The International Foundation for Science (IFS), [www.ifs.se](http://www.ifs.se) -Evaluation of First Research Grant Application IFS NO. AB/20830/ 2009 "A comparison of the molecular and biochemical effects of the diploidiatoxin from the maize fungus *Stenocarpella maydis* in the in vivo and in vitro toxicity testing models" submitted by Mxolisi Goodwill, Toxicology, Food, Feed and Veterinary Public Health, Agricultural research Council, Onderstepoort, Veterinary Institute (ARC-OVI), S. Africa (**International**).

## Focus Group

- Microbiology Focus Group for Non-Majors Biology, Pearson Higher education [www.pearson.com](http://www.pearson.com), San Francisco, CA March 2015
- Pre-med Advisors Meeting- International Focus group, University of Medicine and Health Sciences (UMHS), St Kitts, June 2015.

## External Examiner, Doctoral Thesis:

- Ganesh, B. 2017. Molecular approaches for developing a candidate vaccine for Brucellosis. Bharathiar University, Coimbatore, Tamil Nadu, India. Ph.D Thesis.
- Ragavendra, R.R. 2006 - Isolation and Characterization of antimicrobials of plant origin, Mysore University, Mysore, India (DO No. Ex.9.2/Ph.D/MPR/00-01-06)
- Lakshmesha, K.K. 2007- Host-parasite Interaction of Anthracnose infection on Capsicum, Mysore University, Mysore, India ( DO. No. Ex. 9.0/Ph.D/MPR/07)

## Keynote Speaker, Plenary Addresses & Invited lectures (while at KSU):

1. Invited Guest Speaker- Status of *Aspergillus* spp in Georgia peanuts and Alternate Method of Control to Minimize aflatoxin production. ISMPP International Conference -2017, University of Rajasthan, Jaipur, India, Nov 2017.
2. Invited Speaker -RT-PCR to detect *Aspergillus* spp in contaminated Peanuts and Biological Control using antimicrobial compounds. Dept. of Biotechnology, University of Agricultural Science (UAS), Bangalore, India, July 2014.
3. Invited Speaker - Scanning, Transmission Electron Microscopy and Multiplex PCR to detect *Aspergillus* spp in contaminated Peanuts. Dept. of Biotechnology, University of Agricultural Science (UAS), Bangalore, India, May 2012.
4. Supervisor for training course in Molecular Biology/DNA techniques for 20 Indian post graduate students from various Universities in India at University of Agricultural Science (UAS), Bangalore, India, May 2012.
5. Invited Speaker - Detection of *Aspergillus* spp in Georgia Peanuts and biological control to prevent Aflatoxin. The School of Health, second in the series of Molecular, Microbial and Physiological Sciences (MOPS) Seminars. University of Northampton, Northampton, England. Dec 2011
6. Invited Speaker- Detection of Carcinogenic mold in Peanuts and Integrated Pest Management. Molecular Biosciences Interest Group (MBIG) CSM, KSU, Oct 2011.



7. Invited Speaker- Early detection of *Diplodia maydis* in S. African corn USDA/ARS, Tifton, Feb 2010
8. Achar PN. Aflatoxin in *Aspergillus flavus* and *A. parasiticus* in Georgia Peanuts. Dept. of Microbiology, University of Georgia, Athens. Feb 2010 (acknowledgment pending).
9. Aflatoxin in *Aspergillus flavus* and *A. parasiticus* in Georgia Peanuts. Dept. of Microbiology University of Georgia, Athens. Feb 2010
10. PCR and RAPD for early detection of toxin producing fungi in peanuts. Centre for Converging Technologies (CCT), Rajasthan University, Rajasthan, Jaipur, India, July 2009.
11. Aflatoxin in peanuts and corn. Dept. of Biological Sciences, Georgia State University, Jan 2009.
12. Molecular Characterization of *S.maydis* in corn and aflatoxin in Georgia peanuts. Dept. of Biological Sciences, University College of Agricultural Sciences (UAS), Bangalore, India, Aug 2008.
13. Toxins in corn and peanuts. Faculty of Agricultural Sciences, University of Mauritius, Aug 2008.
14. Molecular and Biochemical Characterization of *Aspergillus flavus* in Georgia peanuts and *Stenocarpella maydis* in corn. Indian Institute of Technology (IIT), Delhi, India, Aug 2007.
15. Molecular Characterization of toxin producing mold in Georgia peanuts. Central and Food Technological Research Institute (CFTRI), Mysore, India, July 2007.
16. An overview of research activities, Dept. of Biology and Physics and an emphasis on Molecular Characterization of toxin producing molds in peanuts and corn. Dept. of Microbiology, University of Mysore, Mysore, India, July 2007.
17. Early detection *Stenocarpella maydis* in corn by PCR and RAPD. Annual meeting of the Southeastern Branch of the American Society for Microbiology. Microbial Pathogens and Epidemiology session. Kennesaw State University, Nov 2006.
18. Molecular diagnosis of *Stenocarpella maydis* in corn and toxicity of diplodiatoxin in mice, ICRISAT (International Crops Research Institute for the Semi-Arid Tropics), Hyderabad, India, July 2005.
19. Diplodiatoxin in corn and primer design to detect *Stenocarpella maydis* in the ear rot of corn, IIT (Indian Institute of Technology), Delhi, India, June 2005.
20. Molecular Relatedness in *Stenocarpella maydis* in corn and effect of diplodiatoxin in Mice, Jivas Jain Institute of Advances studies, Bangalore, India, June 2005.
21. Molecular diagnosis of *Stenocarpella maydis* in Maize, Department of Biotechnology, University of Mysore, Mysore, India, July 2004.

#### **Keynote Speaker, Plenary Addresses & Invited lectures (at other Universities):**

1. Use of VAM as a Biological control agent against *Peronospora parasitica* in Brassicas, Dept. of Botany, University of Brandon, Manitoba, Canada, 2003.
2. PCR and RAPD markers for the detection and differentiation of *Stenocarpella maydis* and Microsatellite markers for detection of *Peronospora parasitica* in *Brassica oleracea*, Department of Plant Sciences, University of Manitoba, Manitoba, Canada, 2003.

3. PCR and RAPD markers for the detection and differentiation of *Stenocarpella maydis* in Maize seeds, Agriculture Canada, Brandon, Manitoba, Canada, 2003.
4. PCR and RAPD markers for differentiation and detection of *Stenocarpella maydis* in maize, Dept. of Microbiology University of South Dakota, Brookings, SD, USA, 2003.
5. Molecular characterization of Downy Mildew pathogen in *Brassicac*s and Ear rot in Maize, School of Biological Sciences, University of Auckland, Auckland, New Zealand, 2001.
6. Development of primers to detect *Stenocarpella maydis* in maize and Microsatellites as a molecular tool to establish phylogeny, School of Biological and Health Sciences, University of Massey, Palmerston North, New Zealand, 2001.
7. Viable but non-culturable bacteria in water and Sexually transmitted diseases in KwaZulu Natal, Dept. of Medical Science, University College (UCOL), Palmerston North, New Zealand, 2001.
8. Characterization of Diplodiatoxin from *Stenocarpella maydis*, Dept. of Biomedical Science and Microbiology, University of Victoria, Wellington, New Zealand, 2001.
9. Characterization of Diplodiatoxin and its effect in liver, kidney and brain of mice, School of Biological and Health Sciences, University of Canterbury, Christchurch, New Zealand, 2001.
10. The status of Downy mildew research in S. Africa, Department of Biological Sciences, University of Mauritius, Mauritius, 1999.
11. Research Activities at the Department of Microbiology, UDW. Department of Biological Sciences, University of Mauritius, Mauritius, 1999.
12. Valedictory talk on the achievement of the 4 day conference on the Frontier of Biotechnology, 3<sup>rd</sup> Annual conference, Osmania University, Hyderabad, India, 1999 (plenary address).
13. Research Activities at the Department of Microbiology, UDW. Dept. of Engineering and Biotechnology Department, Indian Institute of Science (IIT), Delhi, India.
14. Downy mildew of crucifers in S. Africa, current status at the Frontier of Biotechnology, 3<sup>rd</sup> Annual Congress, Osmania University, Hyderabad, India, 1999. (Invited Guest Speaker), 1999.
15. The Research Activities at the Department of Microbiology, University Of Durban-Westville, Department of Biotechnology, University of Mysore, Mysore, India, 1998.
16. The status of downy mildew of *Brassicac*s in S. Africa, Department of Biotechnology, University of Mysore, Mysore, India, 1998.
17. Downy mildew of rose in Natal, an epidemic issue, Natal Rose Society, Durban, S. Africa, 1996.
18. The dermatophytes prevalence in S. Africa, Halifax Medical Center, Roanoke Rapids, NC, 1996.
19. Research Activities at Microbiology, University of Durban-Westville, Global Conference on Advances in Research on Plant Diseases and Management, Udaipur, India, 1995.
20. Quality of slides - How to improve for international presentation? Global Conference on Advances in Research on Plant Diseases and their Management, Udaipur, India (Plenary address), 1995.

21. Downy mildew in Transkei, Indian Science Congress, 80th Annual Session, University of Goa, India (Plenary address), 1993.
22. Disease identification and control in ornamentals, Botanical association of Transkei, South Africa, 1992.
23. The downy mildew disease in Transkei, Department of Botany, University of Transkei, South Africa, 1991.

**Session Chair/Co-Moderator/ Judge at Symposium and Conference (1992-2012):**

1. Southeastern American Society for Microbiology (SESASM) conference, Session Judge, Oral presentation, University of North Alabama, Florence, Nov 2016 (Regional).
2. NSF/ LSAMP Annual Symposium and Research Conference, Session Chair, "Women in Stem and Leadership". UGA, Athens, Georgia, Oct 2015 (Regional).
3. NSF/LSAMP Annual Symposium and Research Conference, Committee Chair Exhibitors list- UGA, Athens, Georgia, Oct 2015 (Regional).
4. Annual Biomedical Research Conference for Minority/ American Society for Microbiology Poster Session Judge- Molecular Biology and Bioinformatics., St Antonio, Texas, Nov 2014 **(National)**.
5. NSF/LSAMP Annual Symposium and Research Conference Committee Chair Exhibitors list- Georgia Tech, Atlanta, Georgia, Oct 2014 (Regional).
6. NSF/LSAMP Annual Symposium and Research Conference Judge-Microbiology and Molecular Biology, Poster Session, Georgia Tech, Oct 2014 (Regional).
7. NSF/LSAMP Annual Symposium and Research Conference, Committee Chair Exhibitors list- Hilton, Marietta, Georgia, Oct 2013 (Regional).
8. NSF/LSAMP Annual Symposium and Research Conference Judge - Microbiology and Molecular Biology Poster session, Hilton, Marietta, Georgia, Oct 2013 (Regional).
9. NSF/LSAMP Annual Symposium and Research Conference Moderator- Closing Ceremony, Hilton, Marietta, Georgia, Oct 2013 (Regional).
10. NSF/LSAMP Annual Symposium and Research Conference Moderator - Introduced speakers: Tyler Clarke- Peach State LSAMP Scholar (SPSU) & ValaRae Partee-Peach State LSAMP Scholar (UGA Hilton, Marietta, Georgia, Oct 2013 (Regional).
11. NSF/LSAMP Annual Symposium and Research Conference Moderator - Q & A for Keynote Speaker- Dry Erika T Camacho, MLK Visiting Professor, MIT and Assistant Professor School of Mathematics, Arizona State University, Oct 2012 (Regional).
12. NSF/LSAMP Annual Symposium and Research Conference Oral Session Judge, Life Science and Microbiology, University of Georgia, Athens, Oct 2012 (Regional).
13. NSF/LSAMP Annual Symposium and Research conference Poster Session Judge- Life Sciences and Microbiology, Savannah State University, Oct 2011 (regional).
14. NSF/LSAMP Annual Symposium and Research Conference Oral Session Moderator - Cellular and Molecular Biology, Savannah State University Oct 2011 (regional).

15. American Phytopathological Society (APS), Conference Oral session, Co-moderator Session 1- "Bacteriology/Pathogen detection" APS Annual meeting charlotte, N. Carolina Aug 2010 (**International**).
16. Southeastern Biology (ASB), Poster Session Judge : Session 1-Cell and Molecular ASB, Ashville, March, 2010 (regional).
17. Southeastern Biology (ASB) , Oral Session Juge-Session 2- Physiology and Development I, ASB, Ashville, March, 2010 (regional).
18. American Society for Microbiology, South Eastern Branch (SEASM), 95<sup>th</sup> Annual meeting Savannah, Graduate research- Oral Session Judge, 2009 (regional).
19. Third World Organization for Women in Science (TWOWS), UCT, invited guest by UNESCO, Pretoria, S. Africa, 1999 (**International**).
20. Frontier in Biotechnology, Mycology- Session II, Osmania University, Hyderabad, India, 1999 (**International**).
21. South African Society for Plant Pathology Congress, 1998 (**International**).
22. 34th Congress for the South African Society for Plant Pathology, University of Stellenbosch, S. Africa, 1996 (**International**).
23. Biotechnology for Africa, University of Pretoria, Pretoria, S. Africa, 1995 (**International**).
24. University of the Orange Free State, Bloemfontein, S. Africa, 1995 (**International**).
25. Pathological anatomy of infection and systemic invasion of fruit trees by bacterial pathogens. 33rd Congress of South African Society for Plant Pathology, S. Africa, 1996 (**International**).
26. Research Day, Department of Microbiology, University of Durban-Westville, Durban, S. Africa, 1994 (Local).
27. Research Day, Mycology and Plant Pathology, Department of Botany, University of Transkei, S. Africa, 1993 (Local).
28. Research Day, Honors Research, Oral presentation, Department of Botany, University of Transkei, Transkei, S. Africa, 1992(Local).

#### **PROFESSIONAL SERVICE TO THE COMMUNITY**

- The International Environmental Project Olympiad (INEPO-USA) Judge, Category: Creating a sustainable environment " , Atlanta, Georgia 2011
- International Science and Engineering Fair Judge, Category: Cell & Molecular Biology, Atlanta, Georgia , 2008.
- Cobb-Paulding Regional Science and Engineering Fair for Microbiology , 2006 –present.
- State Of Art in Biology (SOTAB), Judge, 2005.
- Cobb County Regional Science Bowl competitions, Quiz Master, 2005.
- Kennesaw Mountain High School, Special Lecture "Biotechnology at KSU and a Career in Biotechnology", 2005-2009.

- North Cobb High School, Special Lecture “Biotechnology at KSU and a Career in Biotechnology”, 2005-2008.
- South Cobb High School, Special Lecture “Biotechnology at KSU and a Career in Biotechnology”, 2005-06.
- Kennesaw Mountain High School students’ project supervision under Advanced Scientific Internship Magnate Program at Dept. of Biology and Physics, KSU, Jan- May 2005, 2007, 2009 & 2010.
- Woodstock High school student’s project on “Culturing *Agrobacterium tumefaciens* from root nodules of legumes”, Fall 2011.

PN Achar

01/01/2018