

CURRICULUM VITAE
Naíla Cannes do Nascimento
BS, MSc, PhD

I. PROFESSIONAL HISTORY AND EXPERIENCE

A. Educational Background

- 2001-2005 Professional Student, Biological Sciences (BS) with emphasis on Molecular Biology, Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, Rio Grande do Sul, Brazil.
- 2005-2007 Master of Science in Cellular and Molecular Biology, UFRGS, Porto Alegre, Rio Grande do Sul, Brazil.
- 2007-2011 PhD in Cellular and Molecular Biology, UFRGS, Porto Alegre, Rio Grande do Sul, Brazil.
- 2011-2012 Visiting Scholar (Postdoctoral Researcher), Department of Comparative Pathobiology, Purdue University, West Lafayette IN, USA.
- 2012-2014 Postdoctoral Research Fellow of Brazilian National Council for Scientific and Technological Development (CNPq), Department of Comparative Pathobiology, Purdue University, West Lafayette IN, USA.
- 2014-2015 Postdoctoral Research Associate, Department of Comparative Pathobiology, Purdue University, West Lafayette IN, USA.
- 2015-2016 Postdoctoral Research Associate, Department of Food Science, Purdue University, West Lafayette IN, USA.
- 2018-present Research Associate, Department of Speech, Language, and Hearing Sciences & Department of Comparative Pathobiology, Purdue University, West Lafayette IN, USA. Ongoing project: Pathobiology and biomechanics of vocal fold dehydration

B. Previous positions and honors

- 2002-2005 Coordination for the Improvement of Higher Education Personnel (CAPES) Fellowship for Scientific Initiation, Universidade Federal do Rio Grande do Sul, Brazil.
- 2006 Award for Best Scientific Abstract/Poster Presentation, Biological Sciences Section, Universidade Federal do Rio Grande do Sul, Brazil.
- 2005-2007 CAPES Fellowship for Masters Students, Universidade Federal do Rio Grande do Sul, Brazil.
- 2009 Teaching Assistant, Plant Physiology, Universidade Federal do Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil.
- 2007-2011 CAPES Fellowship for PhD Students, Universidade Federal do Rio Grande do Sul, Brazil.
- 2010 Award for Best Poster, UVRAG - First Brazilian Symposium about the Effects of Increased UV Radiation on Agriculture, São José dos Campos, SP, Brazil.
- 2012-2014 Member of the American Society of Microbiology (ASM).
- 2012-2014 CNPq Fellowship for Postdoctoral Research, Purdue University, West Lafayette, IN, USA.

C. Grants Received

1. Coordination for the Improvement of Higher Education Personnel (CAPES). Federal scholarship for Master Science. \$31,200; 2 years, March/2005-February/2007.
2. Coordination for the Improvement of Higher Education Personnel (CAPES). Federal scholarship for Doctorate. \$62,400; 4 years, March/2007-February/2011.
3. Brazilian National Council for Scientific and Technological Development (CNPq). Scholarship for Postdoctoral Researchers Abroad. \$50,400; 2 years, May/2012-April/2014.
4. Hatch Grant, Messick JB (PI), role: co-investigator: Could Chronic *Mycoplasma suis* Infection Undermine the Use of Pigs as a Model System for Biomedical Research? \$58,561.30; 2 years, 2012-2014.
5. Programa Ciência Sem Fronteiras, CNPq-Brazil, Guimarães AMS (PI), role: co-investigator: Comparative study of host-pathogen interactions of *Mycobacterium bovis* and *M. tuberculosis* during infection of human macrophages by RNA sequencing. \$40,000; 2 years, 2013-2015.

II. PUBLICATIONS

A. Doctoral Dissertation and Postdoctoral Project Titles

1. Doctoral Dissertation: “UV-B induction of brachycerine alkaloid in leaves of *Psychotria brachyceras* and its potential application as sunscreen on human skin”
2. Postdoctoral Project (2012-2014): “Could Chronic *Mycoplasma suis* Infection Undermine the Use of Pigs as a Model System for Biomedical Research?”
3. Postdoctoral Project (2014-2015): “*Sarcocystis neurona* (strain SN3): proteome and secretome analysis”

B. Chapters in Books

1. **do Nascimento NC**, Fett-Neto AG. Plant Secondary Metabolism and Challenges in Modifying Its Operation: An Overview. In: Arthur Germano Fett-Neto (ed.). Plant Secondary Metabolism Engineering- Methods and Applications. New York: Humana Press, 2010, v. 643, p. 1-13.

C. Articles in Journals

1. **Cannes do Nascimento N**, Dos Santos AP, Sivasankar MP, Cox A. Unraveling the molecular pathobiology of vocal fold systemic dehydration using an in vivo rabbit model. PLoS One. 2020 Jul 31;15(7):e0236348. doi: 10.1371/journal.pone.0236348.
2. Duan C, **do Nascimento NC**, Calve S, Cox A, Sivasankar MP. Restricted Water Intake Adversely Affects Rat Vocal Fold Biology. Laryngoscope. 2020 Jul 13. doi: 10.1002/lary.28881. Epub ahead of print. PMID: 32658340.

3. Cox A, **Cannes do Nascimento N**, Pires Dos Santos A, Sivasankar MP. Dehydration and Estrous Staging in the Rat Larynx: an in vivo Prospective Investigation. *J Voice*. 2019 Jul 13. pii: S0892-1997(19)30236-X.
4. de Carvalho SP, de Almeida JB, de Freitas LM, Guimarães AMS, **do Nascimento NC**, Dos Santos AP, Campos GB, Messick JB, Timenetsky J, Marques LM. Genomic profile of Brazilian methicillin-resistant *Staphylococcus aureus* resembles clones dispersed worldwide. *J Med Microbiol*. 2019 Mar 22.
5. **do Nascimento NC**, Guimaraes AMS, Dos Santos AP, Chu Y, Marques LM, Messick JB. RNA-Seq based transcriptome of whole blood from immunocompetent pigs (*Sus scrofa*) experimentally infected with *Mycoplasma suis* strain Illinois. *Vet Res*. 2018 Jun 18;49(1):49.
6. Bailey TW, **do Nascimento NC**, Bhunia AK. Genome Sequence of *Listeria monocytogenes* Strain F4244, a 4b Serotype. *Genome Announc*. 2017 Dec 7;5(49). pii: e01324-17.
7. de Carvalho SP, de Almeida JB, de Freitas LM, Guimaraes AM, **do Nascimento NC**, Dos Santos AP, Messick JB, Timenetsky J, Marques LM. Draft Genome Sequences of Two Clinical Methicillin-Resistant *Staphylococcus aureus* Strains Isolated from Healthy Children in Brazil. *Genome Announc*. 2017 Apr 13;5(15). pii: e00158-17.
8. de Almeida JB, de Carvalho SP, de Freitas LM, Guimarães AM, **do Nascimento NC**, Dos Santos AP, Messick JB, Timenetsky J, Marques LM. Draft Genome Sequence of Methicillin-Resistant *Staphylococcus aureus* Strain LC33 Isolated from Human Breast Milk. *Genome Announc*. 2017 Apr 13;5(15). pii: e00154-17.
9. Marques LM, Rezende IS, Barbosa MS, Guimarães AM, Martins HB, Campos GB, **do Nascimento NC**, Dos Santos AP, Amorim AT, Santos VM, Farias ST, Barrence FÂ, de Souza LM, Buzinhani M, Arana-Chavez VE, Zenteno ME, Amarante-Mendes GP, Messick JB, Timenetsky J. *Ureaplasma diversum* Genome Provides New Insights about the Interaction of the Surface Molecules of This Bacterium with the Host. *PLoS One*. 2016 Sep 7;11(9):e0161926.
10. Johnson KA, **do Nascimento NC**, Bauer AE, Weng HY, Hammac GK, Messick JB. Detection of hemoplasma infection of goats by use of a quantitative polymerase chain reaction assay and risk factor analysis for infection. *Am J Vet Res*. 2016 Aug;77(8):882-9.
11. Doyle RL, França RT, Oliveira CB, Rezer JFP, Klafke GM, Martins JR, Santos AP, **do Nascimento NC**, Mesick JB, Lopes STA, Leal DBR, Da Silva AS, Andrade CM. Cattle experimentally infected by *Anaplasma marginale*: Influence of splenectomy on disease pathogenesis, oxidative profile, and antioxidant status. *Microb Pathog*. 2016 Jun;95:193-199.
12. Paim FC, dos Santos AP, **do Nascimento NC**, Lasta CS, Oliveira ST, Messick JB, Lopes ST. Development of a quantitative PCR for the detection of *Rangelia vitalii*. *Vet Parasitol*. 2016 Feb 15;217:113-7.

13. Conrado Fde O, **do Nascimento NC**, Dos Santos AP, Zimpel CK, Messick JB, Biondo AW. Occurrence and identification of hemotropic mycoplasmas (Hemoplasmas) in free ranging and laboratory rats (*Rattus norvegicus*) from two Brazilian zoos. BMC Vet Res. 2015 Nov 23;11(1):286.
14. Vieira TSWJ, Vidotto O, Guimarães AMS, Santos AP, **do Nascimento NC**, Finger MAP, Barros-Filho IR, Dornbusch PT, Biondo AW, Vieira RFC, Messick JB. Use of pan-hemoplasma PCR for screening horses highly exposed to tick bites from southern Brazil. Semina: Ciências Agrárias. 2015; 36:291.
15. Guimaraes AM, Zimpel CK, Ikuta CY, **do Nascimento NC**, Dos Santos AP, Messick JB, Heinemann MB, Ferreira Neto JS, Brandão PE. Draft Genome Sequence of *Mycobacterium bovis* Strain SP38, a Pathogenic Bacterium Isolated from a Bovine in Brazil. Genome Announc. 2015. 3(3). pii: e00511-15.
16. Marques LM, Guimarães AM, Martins HB, Rezende IS, Barbosa MS, Campos GB, **do Nascimento NC**, Dos Santos AP, Amorim AT, Santos VM, Messick JB, Timenetsky J. Genome Sequence of *Ureaplasma diversum* Strain ATCC 49782. Genome Announc. 2015. 3(2). pii: e00314-15.
17. **do Nascimento NC**, dos Santos AP, Chu Y, Guimaraes AM, Baird AN, Weil AB, Messick JB. Microscopy and genomic analysis of *Mycoplasma parvum* strain Indiana. Vet Res. 2014. 45:86.
18. Guimaraes AM, Santos AP, **do Nascimento NC**, Timenetsky J, Messick JB. Comparative genomics and phylogenomics of hemotropic mycoplasmas. PLoS One. 2014. 9(3):e91445.
19. Santos AP, Conrado FO, Messick JB, Biondo AW, Oliveira ST, Guimaraes AM, **Nascimento NC**, Pedralli V, Lasta CS, González FH. Hemoplasma prevalence and hematological abnormalities associated with infection in three different cat populations from Southern Brazil. Rev Bras Parasitol Vet. 2014; 23(4):428-34.
20. Deshuillers PL, Santos AP, **do Nascimento NC**, Hampel JA, Bergin IL, Dyson MC, Messick JB. Complete Genome Sequence of *Mycoplasma ovis* Strain Michigan, a Hemoplasma of Sheep with Two Distinct 16S rRNA Genes. Genome Announc. 2014. 2(1).
21. **do Nascimento NC**, Santos AP, Chu Y, Guimaraes AMS, Pagliaro A, Messick JB. Genome sequence of *Mycoplasma parvum* (formerly *Eperythrozoon parvum*), a diminutive hemoplasma of the pig. Genome Announc. 2013. 1(6).
22. **do Nascimento NC**, Menguer PK, Henriques AT, Fett-Neto AG. Accumulation of brachycerine, an antioxidant glucosidic indole alkaloid, is induced by abscisic acid, heavy metal, and osmotic stress in leaves of *Psychotria brachyceras*. Plant Physiol Biochem. 2013; 73:33-40.
23. **do Nascimento NC**, Santos AP, Guimaraes AM, Sanmiguel PJ, Messick JB. *Mycoplasma haemocanis*--the canine hemoplasma and its feline counterpart in the genomic era. Vet Res. 2012. 43:66.

24. Guimaraes AM, Toth B, Santos AP, **do Nascimento NC**, Kritchevsky JE, Messick JB. Genome sequence of "*Candidatus Mycoplasma haemolamae*" strain purdue, a red blood cell pathogen of alpacas (*Vicugna pacos*) and llamas (*Lama glama*). J Bacteriol. 2012. 194(22):6312-3.
25. dos Santos AP, Guimaraes AM, **do Nascimento NC**, SanMiguel PJ, Messick JB. Complete genome sequence of *Mycoplasma wenyonii* strain Massachusetts. J Bacteriol. 2012. 194(19):5458-9.
26. **do Nascimento NC**, Guimaraes AMS, Santos AP, Sanmiguel PJ, Messick JB. Complete Genome Sequence of *Mycoplasma haemocanis* Strain Illinois. J Bacteriol. 2012. 194(6):1605-6.
27. **do Nascimento NC**, Menguer PK, Sperotto RA, de Almeida MR, Fett-Neto AG. Early changes in gene expression induced by acute UV exposure in leaves of *Psychotria brachyceras*, a bioactive alkaloid accumulating plant. Mol Biotechnol. 2013. 54(1):79-91.
28. Santos AP, Guimaraes AMS, **do Nascimento NC**, SanMiguel PJ, Martin SW, Messick JB. Genome of *Mycoplasma haemofelis*, unraveling its strategies for survival and persistence. Vet Res. 2011; 42(1):102.
29. Fragoso V, **do Nascimento NC**, Moura DJ, e Silva AC, Richter MF, Saffi J, Fett-Neto AG. Antioxidant and antimutagenic properties of the monoterpene indole alkaloid psychollatine and the crude foliar extract of *Psychotria umbellata* Vell. Toxicol In Vitro. 2008; 22(3):559-66.
30. **do Nascimento NC**, Fragoso V, Moura DJ, e Silva AC, Fett-Neto AG, Saffi J. Antioxidant and antimutagenic effects of the crude foliar extract and the alkaloid brachycerine of *Psychotria brachyceras*. Environ Mol Mutagen. 2007; 48(9):728-34.
31. Gregianini TS, Porto DD, **do Nascimento NC**, Fett JP, Henriques AT, Fett-Neto AG. Environmental and ontogenetic control of accumulation of brachycerine, a bioactive indole alkaloid from *Psychotria brachyceras*. J Chem Ecol. 2004; 30(10):2023-36.

D. Abstracts & Posters (2011-2019)

1. Elshafie, N. O.; **do Nascimento, N. C.**; Varvil, M. S.; Childress, M. O.; Santos, A. P. MicroRNAs as biomarkers in Canine Diffuse Large B-Cell Lymphoma. In: Purdue University Research Day, Purdue University, West Lafayette, IN, USA. 2019.
2. Gundlach, C. N.; Deshuillers, P. L.; Stewart, K.; Santos, A. P.; **do Nascimento, N. C.**; Guptill, L.; Messick, J. B. Preliminary study: isolation of microRNAs from mature feline red blood cells. In: Purdue Veterinary Medicine's 2015 Summer Research Program, West Lafayette, IN, USA. 2015.
3. Colon, N.; Messick, J. B.; Santos, A. P.; **do Nascimento, N. C.**; Johnson, K. Comparison of three DNA extraction kits for detection of *Mycoplasma suis* DNA from

blood as assessed by quantitative PCR. In: 247th ACS National Meeting and Exposition, Dallas, Texas, USA. 2014.

4. **do Nascimento, N. C.**; Santos, A. P.; Chu, Y.; Guimaraes, A. M. S.; Messick, J. B. *Mycoplasma parvum* strain Indiana: outside, inside and beyond. In: Health and Disease: Science, Culture and Policy Research Poster Session. Purdue University, West Lafayette, IN, USA. 2014.
5. Lundewall L. J.; **do Nascimento, N. C.**; Santos, A. P.; Johnson, K.; Pagliaro, A. A.; Messick, J. B. Development of a multiplex microbead immunoassay to detect antibodies against *Mycoplasma haemofelis*. In: Purdue Veterinary Medicine's 2014 Summer Research Program, West Lafayette, IN, USA. 2014.
6. Guimaraes, A. M. S.; Toth, B.; dos Santos, A. P.; **do Nascimento, N. C.**; Kritchevsky, J.; Messick, J. B. Complete genome sequencing and analysis of the red blood cell pathogen of llamas and alpacas, '*Candidatus Mycoplasma haemolamae*'. In: Conference of Research Workers in Animal Diseases (CRWAD), 2014, Chicago, IL, USA.
7. Paim, F. C., Santos, A. P., **do Nascimento, N. C.**, Oliveira, S.T., Lasta, C.S., Lopes, S.T.A., Messick, J. B. Development of a SYBR Green quantitative PCR for the detection of *Rangelia vitalii*. In: American Society for Veterinary Clinical Pathology (ASVCP) 48th Annual Meeting, 2013, Montreal, QC, Canada. Veterinary Clinical Pathology, 42/4 (2013) p. E19.
8. Guimaraes, A. M. S., Santos, A. P., **do Nascimento, N. C.**, Timenetsky, J., Messick, J. B. Comparative genomics and phylogenomics of hemotrophic mycoplasmas. In: 113th General Meeting - American society of Microbiology, Denver, CO, USA. May 18-21, 2013. Outstanding student poster.
9. **Nascimento, N. C.**, Santos, A. P., Guimaraes, A. M. S, Sanmiguel, P. J., Messick, J. B. Comparative genomic analyses of *Mycoplasma haemocanis* and *Mycoplasma haemofelis*: so close but yet so far away. In: American Society for Veterinary Clinical Pathology 47th Annual Meeting, 2012, Seattle. Veterinary Clinical Pathology, 2012. p. 16-16.
10. Santos, A. P., Guimaraes, A. M. S., **do Nascimento, N. C.**, Sanmiguel, P., Messick, J. B. Complete Genome Sequence Of *Mycoplasma Wenyonii* Strain Massachusetts. In: American Society for Veterinary Clinical Pathology 47th Annual Meeting, 2012, Seattle. 2012 ASVCP Annual Meeting Abstracts, 2012. p. 16-17.
11. P.L. Deshuillers; **do Nascimento, N. C.**; Santos, A. P.; Messick, J. B. Detection of *Mycoplasma ovis* and '*Candidatus Mycoplasma haemovis*' in Sheep by Conventional and Quantitative PCR. In: American Society for Veterinary Clinical Pathology 47th Annual Meeting, 2012, Seattle. Veterinary Clinical Pathology, 2012. p. 16-16.
12. R.F.C. Vieira; O. Vidotto ; T.S.W.J. Vieira ; Guimaraes, A. M. S. ; D.A.G. Nascimento; Santos, A. P.; **Nascimento, N.C.**; A.W. Biondo; Messick, J. B. Molecular Investigation of Hemotropic Mycoplasma Species in Dogs, Horses and Humans in a Rural Settlement from Southern Brazil. In: American Society for Veterinary Clinical Pathology 47th Annual Meeting, 2012, Seattle. Veterinary Clinical Pathology, 2012. p. 17-17.

13. **do Nascimento, N. C.**, Santos, A. P., Guimaraes, A. M. S., Breur, G. J., Messick, J. B. PCR Detection of *Mycoplasma ovis* and 'Candidatus Mycoplasma haemovis' in Sheep. In: American Society for Veterinary Clinical Pathology (ASVCP) 46th Annual Meeting, 2011, Nashville, TN, USA. *Veterinary Clinical Pathology*, 40/4 (2011) p.610.
14. Blickensderfer, J. M., Guimaraes, A. M. S., Santos, A. P., **do Nascimento, N. C.**, Cunningham, M., Messick, J. B. Prevalence of Three Species of Feline Hemoplasmas in the Endangered Florida Panther (*Puma concolor coryi*). In: ACVP/ASVCP Concurrent Annual Meeting, 2011, Nashville, TN USA. ACVP/ASVCP Concurrent Annual Meeting Proceedings, 2011.

E. Platform presentations

1. Deshuillers, P., Santos, A. P., **do Nascimento, N. C.**, Messick, J. B. *Mycoplasma ovis* and 'Candidatus Mycoplasma haemovis' whole genome sequencing and validation. In: ACVP/ASVCP Combined Annual Meeting, Montreal, QC, Canada, 2013.
2. Messick, J. B., Santos, A. P., Guimaraes, A. M. S., **Nascimento, N. C.** From their genomes, the hemoplasmas speak (Lecture). In: American Society for Veterinary Clinical Pathology (ASVCP) 46th Annual Meeting, Nashville, TN, USA, 2011.

III. SUPERVISIONS AND COLLABORATIONS

A. Supervision of Graduate Student Research

PhD Candidates

1. Kathy Johnson, Purdue University, West Lafayette, IN, USA. **Molecular Biology training – Hemoplasmas Laboratory, Department of Comparative Pathobiology, Purdue University.** 2012-2014. (Current PhD candidate in the Department of Comparative Pathobiology)
2. Francine C. Paim, Universidade Federal de Santa Maria (UFSM), Rio Grande do Sul, Brazil. **Molecular Biology training – Hemoplasmas Laboratory, Department of Comparative Pathobiology, Purdue University.** 2013. (PhD degree obtained in 2013)
3. Rovaina L. Doyle, Universidade Federal de Santa Maria (UFSM), Rio Grande do Sul, Brazil. **Molecular Biology training – Hemoplasmas Laboratory, Department of Comparative Pathobiology, Purdue University.** 2014. (PhD degree obtained in 2015)

Master of Science Candidates

1. Pierre Lucien Deshuillers, Clinical Pathologist Resident, Purdue University. **Molecular Biology training – Hemoplasmas Laboratory, Department of Comparative Pathobiology, Purdue University.** 2013. (Master's degree obtained in 2014. Current PhD candidate in the Department of Comparative Pathobiology)
2. Francisco Conrado, Universidade Federal do Paraná (UFPR), Paraná, Brazil. **Molecular Biology training – Hemoplasmas Laboratory, Department of Comparative Pathobiology, Purdue University.** 2014. (Master's degree obtained in 2014. Current Clinical Pathology Resident at University of Florida, Gainesville, FL; and PhD candidate at Universidade Federal do Paraná, Brazil)

Undergraduates

1. Cristina K. Zimpel. Veterinary Medicine undergraduate. Universidade Federal de Santa Maria (UFSM), Rio Grande do Sul, Brazil. **Molecular Biology training**. 2012 - Purdue University. (DVM degree obtained in 2012. Current Master of Science candidate at Universidade de São Paulo, SP, Brazil).
2. Nahimarys Colon. Universidad de Puerto Rico, Aguadilla, Puerto Rico. **Summer student**. 2013 - Purdue University.
3. Leslie J. Lundewall. Biology B.S. undergraduate, Minors in Chemistry, Ethology, and Psychology. Indiana University, Bloomington, IN, USA. **Summer research student**. 2014 - Purdue University.

B. Examining Committee Member

1. **do Nascimento, N. C.**; Gnoatto, Simone CB; Soares, Geraldo LG. M.S. Examining Committee Member of Master's of Science Thesis Defense of Anna Carolina Alves Yendo. Thesis title: "Post-harvest Treatments of *Quillaja brasiliensis* Leaves and Accumulation of Bioactive Saponins". Master of Science in Plant Science, Universidade Federal do Rio Grande do Sul (UFRGS), Rio Grande do Sul, Brazil. 2012.
2. **do Nascimento, N. C.**; Silva, L. K. R. E; Pasquali, G. Examining Committee Member of Doctorate Qualification Project of PhD candidate Márcia Rodrigues de Almeida. Project title: "Foundations for the Establishment of *Cedrella tissilis* as a Possible Source of anti-Mycobacterium Metabolites". PhD candidate in Cellular and Molecular Biology, Universidade Federal do Rio Grande do Sul (UFRGS), Rio Grande do Sul, Brazil. 2013.

C. Ongoing Collaboration with International Researchers

1. Dr. Lucas Miranda Marques, Associate professor, Instituto Multidisciplinar em Saúde, Universidade Federal da Bahia, Brazil. "Genomic studies of *Ureaplasma* spp."
2. Dr. Ana Marcia Guimaraes, Young Talent Fellow, Science Without Borders Program, CAPES/CNPQ, Universidade de São Paulo, Faculdade de Medicina Veterinária e Zootecnia, Departamento de Medicina Veterinária Preventiva e Saúde Animal, SP, Brazil. "Comparative study of host-pathogen interactions of *Mycobacterium bovis* and *M. tuberculosis* during infection of human macrophages by RNA sequencing."

IV. TECHNIQUES AND TRAINING

A. List of Techniques

- DNA/RNA purification
- Conventional PCR
- Quantitative PCR
- RT-PCR
- Sanger and Next-Generation sequencing
- Cloning
- Gene expression analysis (Suppression subtractive hybridization-SSH)
- Bacterial genome sequencing and annotation
- Western blot

- Serology assay (ELISA; Luminex microbead assays)
- RNA-Sequence analysis
- Protein network analysis (STRING software)
- Mass spectrometry data analysis (Mascot software)
- GO-function analysis (Blast2GO software)

B. Training

- 2012 ***iPlant* collaborative workshop: Genomics in Education** - Purdue University, West Lafayette, IN, USA.
- 2012 **illumina workshop** - Purdue University (07/13/2012), West Lafayette, IN, USA.
- Introduction to Bioinformatics Core.
 - Introduction to Genomics Core
 - Illumina NGS Sequencing Technology and Applications
 - Illumina RNA-Seq – An Introduction
- 2012 **Galaxy workshop** - Purdue University (10/22/2012), West Lafayette, IN, USA.
- Introduction to Galaxy
 - Basic Analysis into Reusable Workflows
 - RNA-Seq
 - Review NGS data quality issues and some quality control options in Galaxy

V. CONTACT INFORMATION

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