

# JOSÉ A. LEMOS, Ph.D.

## CURRICULUM VITAE

### PRESENT POSITION AND ADDRESS

Associate Professor of Oral Biology  
University of Florida College of Dentistry  
Office Address: 1395 Center Drive, PO Box 100424  
Department of Oral Biology  
Gainesville – FL – 32610-0424  
Phone: (352) 273-8843  
Email: [jlemos@dental.ufl.edu](mailto:jlemos@dental.ufl.edu)

### ACADEMIC APPOINTMENTS

**2015 – present** Associate Professor of Oral Biology, Department of Oral Biology,  
University of Florida College of Dentistry, Gainesville, FL  
**2013 – 2015** Associate Professor of Microbiology and Immunology, Center for Oral  
Biology, University of Rochester, Rochester, NY  
**2007 – 2013** Assistant Professor of Microbiology and Immunology, Center for Oral  
Biology, University of Rochester, Rochester, NY  
**2002 – 2007** Research Assistant Professor, Dept. Oral Biology, University of Florida,  
Gainesville, FL

### EDUCATION AND TRAINING

**2001 – 2002** Postdoctoral Associate, Department of Oral Biology, University of Florida,  
Gainesville, FL  
**2000 – 2001** Postdoctoral Fellow, Center for Oral Biology, University of Rochester,  
Rochester, NY  
**1995 – 2000** PhD. in Microbiology and Immunology - Federal University of Rio de Janeiro,  
Rio de Janeiro, RJ, Brazil  
**1993 – 1995** MS in Microbiology and Immunology- Federal University of Rio de Janeiro, Rio  
de Janeiro, RJ, Brazil  
**1987 – 1990** BS in Biology - Santa Ursula University, Rio de Janeiro, RJ, Brazil

### PROFESSIONAL DEVELOPMENT

Training & Professional Development Program – 2018 Masters Mentor Academy University of  
Florida

### FUNDING INFORMATION

#### **PENDING**

**NIH/NIDCR** –Lemos J, Abranches J (MPI)

09/01/2020 – 08/31/2025

#### **Role of metal ions in *Streptococcus mutans* pathophysiology**

The goal of this application is to define the significance of Zn to the pathophysiology of *S. mutans* by identifying and characterizing the molecular mechanisms of Zn homeostasis, and to determine the significance of these mechanisms in interspecies competition and in caries development.

**ACTIVE**

**NIH/NIDCR RO1 DE022559** – Abranches J, Lemos J (MPI)

7/01/2019 – 6/30/2024

**Intracellular Invasion by *Streptococcus mutans*: Significance in Disease**

The goal of this study is to characterize at the molecular level the collagen binding protein Cnm and determine its role in *S. mutans* oral infection.

Role: PI

**NIH/NIDCR RO1 DE019783** – Lemos J (PI)

7/01/2016 – 6/30/2021

**Role of the Spx Regulator in *Streptococcus mutans***

The objective of this study is to understand the mechanisms used by *S. mutans* to adhere to the tooth, produce acids, and survive acidic conditions in the oral cavity. Our studies will facilitate the discovery of new products that could be used to reduce or eliminate caries.

Role: PI

**NIH/NIDCR T90 DE021990** – Lemos J (PD), Burne RA (AD)

07/01/16- 06/30/21

**Comprehensive Training Program in Oral Biology**

The major goal of this project is to produce a group of highly skilled and interactive scientists who will generate new knowledge and translate discoveries to tangible advances in the detection, prevention, treatment and cure of diseases and abnormalities of the oral and craniofacial complex.

**NIH/NIDCR 5 R90 DE022530** – Lemos J (PD)

07/01/16-06/30/21

**Comprehensive Training Program in Oral Biology**

The goal of this R90 is to provide intensive post-doctoral training for DMD/DDS or DMD/DDS-PhD holders to prepare them for a career in translational research in an academic setting.

**NIH/NIAID R21 AI135158** – Lemos J (PI)

1/01/2018 – 12/31/2019 (Under NCE)

**Regulatory Nucleotides of *Enterococcus faecalis***

The goal of this project is to determine how unusual nucleotides, (p)ppGpp and c-di-AMP, control *E. faecalis* metabolism in a way that increase their tolerance to antibiotics and ability to cause disease.

Role: PI

**NIH/NIAID R21 AI137446** – Lemos J/ Wallet S (MPI)

5/22/2018 – 4/30/2020 (Under NCE)

**Significance of metal homeostasis to bacterial pathogenesis in chronic wounds**

The goal of this project is to evaluate the role of iron and manganese in *E. faecalis* survival and infectivity as well as host responses associated with wound healing, under the condition of type 2 diabetes.

Role: PI

**COMPLETED**

**NIH/NIDCR RO1 DE022559** – Lemos J, Abranches J (MPI)

5/17/2013 – 3/31/2019

**Intracellular Invasion by *Streptococcus mutans*: Significance in Disease**

Role: PI

**University of Florida College of Dentistry Seed Grant – Lemos J and Wallet S (MPI)**  
***Enterococcus faecalis* Pathogenesis in Wound Infection**  
Role: PI

**American Heart Association 16PRE27090044 – Colomer-Winter C (PI)**  
GSA Predoctoral Fellowship  
**Significance of Manganese Homeostasis to *Enterococcus faecalis* Systemic Infections**  
Role: Mentor/Sponsor

**NIH/NIDCR RO1 DE019783 – Lemos J (PI)**  
2/05/2010 – 7/31/2015  
**Role of the Spx Regulator in *Streptococcus mutans***  
Role: PI

**NIH/NHLBI - F31 HL124952-01 - Aviles-Reyes A (PI)**  
8/1/14-11/30/2015  
**Host responses and prevalence of *Streptococcus mutans* in cardiovascular diseases**  
Role: Mentor/Sponsor

**NIH/ NIDCR R03 DE017101- Lemos J (PI)**  
07/17/2006 – 06/30/2009  
**Adaptive Acid Tolerance of *Streptococcus sobrinus***  
Role: PI

#### **PATENTS**

“METHODS FOR PREDICTING AND PREVENTING INFECTIVE CARDIOVASCULAR DISEASE.” - Application Letters Patent in the United States was filed as U.S. Serial N= 61/566,814. December 5, 2011.

**PUBLICATIONS** (h-index 34, i10 index 57)  
(\* ) = Review articles

#### **1998-2000 (PhD dissertation)**

- 1. Lemos, JA**, Giambiagi-deMarval, M. and Castro ACD **1998**. Expression of heat shock proteins in *Streptococcus pyogenes* and their immunoreactivity with sera from patients with streptococcal diseases. **J Med Microbiol**, 47:711-715.
- 2. Lemos, JA**, Burne RA and Castro ACD. **2000**. Molecular cloning, purification and immunological responses of recombinants DnaK and GroEL from *Streptococcus pyogenes*. **FEMS Immunol. Med Microbiol**, 28:121-128

#### **2000-2002 (Postdoc fellow)**

- 3. Lemos, JA**, YM Chen and RA. Burne. **2001**. Genetic and physiologic analysis of the *groE* operon and the role of the HrcA repressor in stress gene regulation and acid tolerance in *Streptococcus mutans*. **J Bacteriol**, 183:6074-6084.
- 4. Laport, MS**, Castro, ACD, Villardo, A., **Lemos, JA**, Bastos, MCF and Giambiagi-deMarval, M. **2001**. Expression of major heat shock proteins DnaK and GroEL in *Streptococcus pyogenes*: a comparison to *Enterococcus faecalis* and *Staphylococcus aureus*. **Current Microbiol**, 42:264-268.

5. **Lemos, JA** and Burne, RA. 2002. Regulation and physiological significance of ClpC and ClpP in *Streptococcus mutans*. **J Bacteriol**, 184:6357-66

**2002-2007 (Research Assistant Professor)**

6. Nascimento, M.M., **Lemos, JA**, Abranches, J., Gonçalves, RB and Burne, RA. 2004. The adaptive acid tolerance response of *Streptococcus sobrinus*. **J. Bacteriol.** 186: 6383-6390.

7. **Lemos, JA**, Brown, TA and Burne, RA. 2004. Effects of RelA on key virulence properties of planktonic and biofilm populations of *Streptococcus mutans*. **Infect Immun**, 72:1431-1440.

8. Laport, MS., **Lemos, JA**, Bastos, MCF, Burne, RA. and Giambiagi-deMarval, M. 2004. Transcriptional analysis of the *groE* and *dnaK* heat-shock operons of *Enterococcus faecalis*. **Res Microbiol**, 155:252-258.

9. Ahn, S-J, **Lemos, JA** and Burne R.A. 2005. Role of HtrA in growth and competence of *Streptococcus mutans* UA159. **J Bacteriol**, 187:3028-3038.

10. Brown, TA Jr., Frank, RN, Chen, YYM, **Lemos, JA** and Burne, RA. 2005. A hypothetical protein from *Streptococcus mutans* is critical for biofilm formation. **Infect Immun**, 73:3147-3151.

11. **Lemos, JA**, Abranches, J. and Burne RA. 2005. Responses of Cariogenic Streptococci to Environmental Stresses. **Curr Issues in Mol Biol**, 7: 95-108. (\*)

12. **Lemos, JA**, Brown, TA, Abranches, J. and Burne, RA. 2005. Characteristics of *Streptococcus mutans* strains lacking the MazEF and RelBE. **FEMS Microbiol Lett**, 253:251-257.

13. Laport, MS, Santos, LL., **Lemos, JA**, Bastos, MCF., Burne, RA., and Giambiagi-deMarval, M. 2006. Organization of the heat-shock *dnaK* and *groE* operons of the nosocomial pathogen *Enterococcus faecium*. **Res Microbiol**, 157:162-168.

14. Abranches, J., **Lemos, JA**, and Burne, RA. 2006. Genes induced by osmotic stress in *Streptococcus mutans* UA159. **FEMS Microbiol Lett**, 255:240-246.

15. **Lemos, JA**, Lin, VK, Nascimento, MM, Abranches, J and Burne, RA. 2007. Three gene products govern (p)ppGpp production by *Streptococcus mutans*. **Molec. Microbiol.** 65: 1568-1581.

16. RSL Nepomuceno, MB Tavares, **JA Lemos**, AR Griswold, JL. Ribeiro, A. Balan, KS Guimarães, S. Cai, RA Burne, LCS. Ferreira and RCC Ferreira. 2007. The oligopeptide (opp) gene cluster of *Streptococcus mutans*: Identification, prevalence and characterization. **Oral Microbiol Immunol**, 22:1-8.

17. **Lemos, JA**., Luzardo, Y. and Burne, RA. 2007. Physiologic effects of forced downregulation of *dnaK* and *groEL* expression in *Streptococcus mutans*. **J Bacteriol**, 189:1582-1588.

**2007-2013 (Assistant Professor)**

18. **Lemos JA**. and Burne, RA. 2008. A model of efficiency: Stress tolerance by *Streptococcus mutans*. **Microbiology**, 154:3247-3255. (\*)

19. **Lemos JA**, Nascimento, MM, Lin, VK. and Burne, RA. 2008. Identification of the CodY regulon and its relationship with (p)ppGpp levels in *Streptococcus mutans*. **J Bacteriol**, 190:5291-5299.

20. Nascimento, MM., **Lemos, JA**, Lin, VK., Abranches, J and Burne, RA. The role of RelA of *Streptococcus mutans* in global control of gene expression. 2008. **J. Bacteriol.** 190: 28-36.

21. Burne, RA, Ahn, SJ, Wen, ZT, Zeng, L, **Lemos, JA**, Abranches, J, and Nascimento, M. 2009. Opportunities for disrupting cariogenic biofilms. **Adv Dental Res**, 21: 17-20. (\*)

22. Abranches, J. Martinez, AR, Kajfasz, JK **Lemos, JA** 2009. The molecular alarmone (p)ppGpp mediates stress responses, vancomycin tolerance and virulence in *Enterococcus faecalis*. **J Bacteriol**, 191:2248-2256.

23. Kajfasz, JK, Martinez AR, Rivera-Ramos, I, Abranches J, Koo H, Quivey RG and **Lemos, JA**. 2009. Role of Clp Proteins in the expression of virulence properties of *S. mutans*. **J Bacteriol**, 191:2060-2068

24. Klein, MI, DeBaz, L, Agidi, LS, Lee H, Xie, G, Lin, A H-M, Hamaker, BR, **Lemos, JA**, Koo, H. **2010**. Dynamics of *Streptococcus mutans* transcriptome in response to starch and sucrose during biofilm development. **PLoS One**, 5:1-13.
25. **Lemos, JA**, Abranches J, Koo, H, Marquis M, Burne RA. **2010**. Protocols to study the physiology of oral biofilms. **Methods Mol Biol**, 666:87-102.
26. Kajfasz, JK, Rivera-Ramos, I, Abranches, J, Martinez, AR, Rosalen, PL, Derr, AM, Quivey, RG and **Lemos, JA** **2010**. Two Spx proteins modulate stress tolerance, survival, and virulence in *Streptococcus mutans*. **J Bacteriol**, 192:2546-2556.
27. Martinez, AR, Abranches, J, Kajfasz, JK and **Lemos, JA**. **2010**. Characterization of the *Streptococcus sobrinus* acid stress response by interspecies microarrays and proteomics. **Molec Oral Microbiol**, 25:331-342.
28. Kajfasz, JK, Abranches, J. and **Lemos, JA**. **2011**. Transcriptome analysis of  $\Delta clpP$  and  $\Delta clpX$  strains reveals that ClpXP proteolysis controls key virulence properties of *Streptococcus mutans*. **Microbiology**, 157:2880-2890.
29. Abranches, J, Miller, JH, Martinez, AR, Simpson-Haidaris, PJ, Burne, RA and **Lemos, JA**. **2011**. The collagen-binding protein Cnm is required for *Streptococcus mutans* adherence to and intracellular invasion of human coronary artery endothelial cells. **Infect Immun**, 79:2277-2284.
30. Oliveira, NEM, Abranches, J, Gaca, AO, Laport. MS, Damaso, CR, Bastos, MCF., **Lemos, JA**, and Giambiagi-deMarval., M. **2011**. *clpB*, a class III heat-shock gene regulated by CtsR, is involved in thermotolerance and virulence of *Enterococcus faecalis*. **Microbiology**, 157:656-665.
31. Falsetta M, Klein M, **Lemos, JA**, Silva B, Agidi S, Scott-Anne K and Koo H. **2012**. Novel anti-biofilm chemotherapy targets exopolysaccharide synthesis and stress tolerance in *Streptococcus mutans* to modulate virulence expression *in vivo*. **Antimicrob Agents Chemother**, 56: 6201-6211.
32. Gaca, AO, Abranches, J, Kajfasz, JK and **Lemos, JA**. **2012**. Global transcriptional analysis of the stringent response in *Enterococcus faecalis*. **Microbiology**, 158: 1994-2004.
33. Kajfasz, JK, Mendoza, JE, Gaca, AO, Miller, JH, Koselny, KA, Giambiagi-deMarval, M, Wellington, M, Abranches, J and **Lemos, JA**. **2012**. The Spx regulator modulates stress responses and virulence in *Enterococcus faecalis*. **Infect Immun**, 80:2265-2275.
34. Chávez-dePaz, L, **Lemos, JA**, Sedgley, CM. **2012**. Role of (p)ppGpp in biofilm formation of *Enterococcus faecalis*. **Appl Env Microbiol**, 78:1627-1630

#### **2013-2015 (Associate Professor at University of Rochester)**

35. Gaca, AO, Kajfasz, JK, Miller, JH, Liu, K, Wang, JD, Abranches, J and **Lemos, JA**. **2013**. Basal levels of (p)ppGpp in *Enterococcus faecalis*: the magic beyond the stringent response. **MBio**, 4(5):e00646-13.
36. Aviles-Reyes, A, Miller, JH, Simpson-Haidaris, PJ, **Lemos, JA**, Abranches, J. **2013**. Cnm is a major virulence factor of invasive *Streptococcus mutans* and part of a conserved three-gene locus. **Mol Oral Microbiol**, 29:11-23.
37. Abranches, J, Tijerina, P, Aviles-Reyes, A, Gaca, AO, Kajfasz, JK and **Lemos, JA**. **2013**. The cell wall-targeting antibiotic stimulon of *Enterococcus faecalis*. **PLoS One**, 8(6):e64875.
38. Palmer, SR, Miller, JH, Abranches J, Zeng, L, Lefebure, T, Richards, VP, **Lemos, JA**, Stanhope, MJ and Burne, RA. **2013**. Phenotypic Heterogeneity of Genomically-Diverse Isolates of *Streptococcus mutans*. **PLoS One** 8: 1-17.
39. **Lemos, JA**, Quivey, RG, Koo, H and Abranches, J. **2013**. *Streptococcus mutans*, a new Gram-positive paradigm? **Microbiology**, 159: 436-445. (\*)
40. Frank KL, Colomer-Winter C, Grindle SM, **Lemos JA**, Schlievert P, Dunny GM. **2014**. Transcriptome analysis of *Enterococcus faecalis* during mammalian infection shows cells undergo adaptation and exist in a stringent response state. **PLoS One**, 9(12):e115839.
41. Aviles-Reyes, A, Miller, JH, Simpson-Haidaris PJ, Hagen FK, Abranches, J. and **Lemos, JA**, **2014**. Modification of *Streptococcus mutans* Cnm by PgfS contributes to adhesion, endothelial

cell invasion and virulence. **J Bacteriol**,196:2789-2797.

42. Baker J, Derr, A, Karuppaiah K, MacGilvray M, Kajfasz JK, Faustoferri R, Rivera-Ramos I, **Lemos JA**, Bitoun J, Wen Z, and Quivey RG. 2014 *Streptococcus mutans* NADH oxidase lies at the intersection of overlapping regulons controlled by oxygen and NAD<sup>+</sup> levels. **J Bacteriol** 196:2166-2177.

43. Miller JH, Aviler-Reyes A, Scott-Anne K, Gregoire S, Watson GE, Sampson E, Progulske-Fox A, Koo H, Bowen WH, **Lemos JA** and Abranches J. 2015. The collagen binding protein Cnm contributes to oral colonization and cariogenicity of *Streptococcus mutans* OMZ175. **Infect Immun**, 83:2001-2010.

44. Gaca, AO, Colomer-Winter C and **Lemos JA**. 2015. Many means to a common end: the intricacies of (p)ppGpp metabolism and its control of bacterial homeostasis **J Bacteriol**, 197:1146-1156. (\*)

45. Galvão LCC, Miller JH, Kajfasz JK, Scott-Anne K, Freires IA, Franco GCN, Abranches J, Rosalen PL and **Lemos JA**. 2015. Transcriptional and phenotypic characterization of novel Spx regulated genes in *Streptococcus mutans*. **PloS One**, 10(4):e0124964.

46. Kajfasz, JK, Rivera-Ramos, I, Scott-Anne, K, Gregoire S, Abranches J and **Lemos JA**. 2015. Transcription of oxidative stress genes is directly activated by SpxA1 and, to a lesser extent, by SpxA2 in *Streptococcus mutans*. **J Bacteriol**, 197:2160-2170.

47. Baker JL, Abranches J, Faustoferri RC, Hubbard CJ, **Lemos JA**, Courtney MA, Quivey, RG. 2015. Transcriptional profile of glucose-shocked and acid-adapted strains of *Streptococcus mutans*. **Mol Oral Microbiol**, 30:496-517.

48. Gaca AO, Colomer-Winter C, Kudrin P, Beljantsev J, Liu K, Anderson B, Wang JD, Rejman D, Potrykus K, Cashel M, Haurlyuk V and **Lemos JA**. 2015. From (p)ppGpp to (pp)pGpp: Characterization of Regulatory Effects of pGpp Synthesized by the Small Alarmone Synthetase of *Enterococcus faecalis*. **J Bacteriol**, 15:2908-2919. [JB Spotlight article](#)

- [Editors Spotlight: Characterization of the enterococcal small alarmone expands our vocabulary of regulatory nucleotides. J Bacteriol. 197\(18\):2895.](#)

#### 2015-present (Associate Professor at University of Florida)

49. Avilés-Reyes, A, **Lemos, JA** and Abranches, J. 2015. Lectin Binding Analysis of *Streptococcus mutans* Glycoproteins. **Bio-protocol** 5(7): e1431. <http://www.bioprotocol.org/e1431>

50. Aviles-Reyes A, **Lemos JA** and Abranches J. 2016. The Collagen Binding Proteins of *Streptococcus mutans* and Related Streptococci. **Mol Oral Microbiol**, DOI: 10.1111/omi.12158.

51. Galvão LCC, Rosalen PL, Rivera-Ramos, I, Franco GCN, Kajfasz, JK, Abranches J, Bueno-Silva B, Koo H and **Lemos JA**. 2016. Inactivation of the *spxA1* or *spxA2* gene of *Streptococcus mutans* decreases virulence in the rat caries model. **Mol Oral Microbiol**, doi: 10.1111/omi.12160. [Epub ahead of print]

52. Papadimitriou, K, Alegria A, Bron P, De Angelis M, Gobbetti M, Klerebezem M, **Lemos JA**, Linares D, Paul R, Stanton C, Turrone F, van Sinderen D, Varmanen P, Ventura M, Zuniga M, Tsakalidou E and Kok J. 2016. Stress Physiology of lactic acid bacteria. **Microbiol Mol Biol Rev**, 80:837-880 (\*)

53. Freires IA, Aviles-Reyes A, Kitten T, Simpson-Haidaris PJ, Swartz M, Knight PA, Rosalen PL, **Lemos JA**, Abranches J. 2016. Heterologous expression of *Streptococcus mutans* Cnm in *Lactococcus lactis* promotes intracellular invasion, adhesion to human cardiac tissues and virulence. **Virulence**, 3: 1-12.

- [Research Highlights: Nobbs A. Getting to the heart of the matter: Role of Streptococcus mutans adhesin Cnm in systemic disease. Virulence 8\(2\):1-4 \(2017\).](#)

54. Cassenego APV, de Oliveira NEM, Laport MS, Abranches, J, **Lemos JA** and Giambiagi-de Marval, M. 2016. The CtsR regulator controls the expression of *clpC*, *clpE* and *clpP* and is

- required for the virulence of *Enterococcus faecalis* in an invertebrate model. **Ant Van Leeuw**, 109:1253-1259.
55. Hwang G, Liu Y, Kim D, Sun V, Aviles-Reyes A, Kajfasz JK, **Lemos JA** and Koo H. 2016. Simultaneous spatiotemporal mapping of *in situ* pH and bacterial activity within an intact 3D microcolony structure, **Sci Rep**, 6:32841.
56. Aviles-Reyes A, Freires IA, Rosalen PL, **Lemos JA**, Abranches J. 2017. *Ex vivo* model of human aortic valve colonization. **Bio-protocol** 7(11): e2316. DOI: [10.21769/BioProtoc.2316](https://doi.org/10.21769/BioProtoc.2316).
57. Colomer-Winter C, Gaca AO and **Lemos JA**. 2017. The association of metal homeostasis and (p)ppGpp regulation in the pathophysiology of *Enterococcus faecalis*. **Infect Immun**. 85 (7):e00260-17
58. Kajfasz JK, Ganguly T, Hardin EL, Abranches J and **Lemos JA**. 2017. Transcriptome responses of *Streptococcus mutans* to peroxide stress: identification of novel antioxidant pathways regulated by Spx. **Sci Rep**. 7(1): 16018.
59. Freires IA, **Lemos JA** and Abranches J. 2017. A new perspective of an old villain: revisiting markers of caries development. **EBioMedicine**. S2352-3964(17)30421-8.
60. Aviles-Reyes A, Freires IA, Kajfasz JK, Barbieri D, Miller JH, **Lemos JA** and Abranches J. 2017. Whole genome sequence and phenotypic characterization of a Cbm<sup>+</sup> serotype e strain of *Streptococcus mutans*. **Mol Oral Microbiol**, DOI:10.1111/omi12222
61. Aviles-Reyes A, Freires IA, Besingi R, Deivanayagan C, Brady LJ, Abranches J and **Lemos JA**. 2018. Characterization of the *pgf* operon involved in the posttranslational modification of *Streptococcus mutans* surface proteins. **Sci Rep**, 8(1):4705.
62. Ganguly T, Kajfasz JK, Miller JH, Rabinowitz E, Galvão LCC, Rosalen PL, Abranches J and **Lemos JA**. Disruption of a novel iron transport system reverses oxidative stress phenotypes of a *dpr* mutant strain of *Streptococcus mutans*. 2018. **J. Bacteriol**. 200: e00062-18.
63. Colomer-Winter C, Flores-Mireles AL, Baker SP, Frank KL, Lynch AJL, Hultgren SJ, Kitten T and **Lemos JA**. 2018. Manganese acquisition is essential for virulence of *Enterococcus faecalis*. **PLoS Pathogens**, 14 (9): e1007102.
- **Research Highlights: Metal *Enterococcus* equipment. Nat. Chem. Biol. 14, 1067 (2018).**
64. Colomer-Winter C, Gaca AO, Chuang-Smith ON, **Lemos JA**, and Frank KL. 2018. Basal levels of (p)ppGpp differentially affect the pathogenesis of infective endocarditis in *Enterococcus faecalis*. **Microbiology**, doi: 10.1099/mic.0.000703
65. De A, Jorgensen AN, Beatty WL, **Lemos JA** and Wen ZT. 2018. Deficiency of MecA in *Streptococcus mutans* Causes Major Defects in Cell Envelope Biogenesis, Cell Division, and Biofilm Formation. **Front Microbiol**, doi: 10.3389/fmicb.2018.02130
66. Alves LA, Ganguly T, Mattos-Graner RO, Kajfasz JK, Harth-Chu EN, **Lemos JA**, Abranches J. 2018. CovR and VicRKX regulate transcription of the collagen binding protein Cnm of *Streptococcus mutans*. **J. Bacteriol**. 200, e00141-18.
67. Abranches J, Zeng L, Kajfasz JK, Palmer SR, Chakraborty B, Wen ZT, Richards VP, Brady LJ and **Lemos JA**. 2018. Biology of Oral Streptococci. **Microbiol Spectr**. 6 (5): doi:10.1128/microbiolspec.GPP3-0042-2018 10.1128/microbiolspec. (\*)
68. **Lemos JA**, Palmer SR, Zeng L, Wen ZT, Kajfasz JK, Freires IA, Abranches J and Brady LJ. 2019. Biology of *Streptococcus mutans*. **Microbiol. Spectr.**, 7 (1) doi:10.1128/microbiolspec.GPP3-0051-2018. (\*)
69. Flores-Mireles, AL, Colomer-Winter C and **Lemos JA**. 2019. Biofilm Assays on Fibrinogen-coated Silicone Catheters and 96-well Polystyrene Plates. **Bio-protocol**, 9(6): doi:[10.21769/BioProtoc.3196](https://doi.org/10.21769/BioProtoc.3196)
70. Gaca AO and **Lemos JA**. 2019. Adaptation to adversity: The intermingling of stress tolerance and pathogenesis in enterococci. **Microbiol Mol Biol Rev**, 83:e00008-19 (\*)

71. Colomer-Winter C, Flores-Mireles AL, Kundra S, Hultgren SJ, **Lemos JA**. 2019. (p)ppGpp and CodY promote *Enterococcus faecalis* virulence in a murine model of catheter-associated urinary tract infection. **mSphere**, 4: e00392-19
72. Kajfasz,JK, Katrak C, Ganguly T, Vargas J, Wright L, Peters ZT, Spatafora G, Abranches J and **Lemos JA**. 2019. Manganese uptake, mediated by SloABC and MntH, is essential for the fitness of *Streptococcus mutans*. **mSphere**, 5:e0076419.
- **Editor's choice**
73. Ganguly T, Kajfasz,JK, Abranches J and **Lemos JA**. Regulatory circuits controlling Spx levels in *Streptococcus mutans*. 2020. **Molec Microbiol**. doi: 10.1111/mmi.14499
74. Alves. LA, Ganguly, T, Harth-Chú EN, Kajfasz JK, **Lemos JA**, Abranches J. and Mattos-Graner RO. 2020. PepO is a target of the two-component systems VicRK and CovR required for systemic virulence of *Streptococcus mutans*. **Virulence**, 11:521-526
75. Lima AR, Fransisco PA, Ganguly, T, Walker AR, Acosta N, Pileggi R, **Lemos JA**, Gomes BPF and Abranches J. 2020. Characterization of *Streptococcus mutans* strains isolated from endodontic infections. **J Endodont**, in press
76. Kundra S, Colomer-Winter C and **Lemos JA**. Survival of the fittest: the relationship of (p)ppGpp with bacterial virulence. **Front Microbiol**, Under review (\*)
77. Kajfasz JK, Zuber P, Ganguly T, Abranches J, **Lemos JA**. Increased oxidative stress tolerance of a spontaneously-occurring *perR* gene mutation in *Streptococcus mutans* UA159. Under review

## BOOK CHAPTERS AND OTHER PUBLICATIONS

1. **Lemos, JA**, Abranches, J, Koo, H, Marquis, RE, and Burne, RA (2010) Chapter 7: Protocols to Study the Physiology of Oral Biofilms. In: *Methods in Molecular Biology: Molecular Techniques and Applications in Oral Biology*. The Humana Press. New Jersey, USA.
2. Burne, RA, Abranches, J, Ahn, SJ, **Lemos, JA**, Wen, ZT and Zeng, L (2011) Chapter 13: Functional Genomics of *Streptococcus mutans*. In: *Oral Microbial Communities: Genomic Inquiries and Interspecies Communication*. ASM Press, Washington DC, USA.
3. **Lemos JA**, Tsakalidou E, and Papadimitriou K. (2011) Chapter 12: Stress responses of Streptococci. In: *Stress Responses of Lactic Acid Bacteria*. Springer Science + Business Media, LLC, New York.
4. Abranches, J. and **Lemos, JA**. (2012) Chapter 2: Stress Response of *Streptococcus*. In: *Stress Response in Microbiology*. Horizon Scientific Press, Norwick, UK
5. Quivey RG, Koo H, **Lemos JA**, and Kopycka-Kedzierawski D. (2012) Chapter 11: Dental Caries: General Concepts. In: *Oral Microbiology and Immunology*. ASM Press, Washington DC, USA.
6. Quivey RG, Koo H, **Lemos JA**, and Kopycka-Kedzierawski D. (2012) Chapter 12: Pathogenic Mechanisms in Dental Caries. In: *Oral Microbiology and Immunology*. ASM Press, Washington DC, USA.
7. Fantuzzo JJ, Armanious M, and **Lemos JA**. (2013) "An Update on the Microbiology of Oral and Maxillofacial Infections". *Oral & Maxillofacial Surgery Knowledge Updates Vol V: AAOMS Publications*.
8. **Lemos JA**, Wu H, Quivey RG and Koo H. (2019) Chapter 12: Pathogenic mechanisms in dental caries. In: *Oral Microbiology and Immunology*. ASM Press, Washington DC, USA
9. Abranches J, Zeng L, Kajfasz JK, Palmer SR, Chakraborty B, Wen ZT, Richards VP, Brady LJ and **Lemos JA**. (2020) Chapter 26. Biology of Oral Streptococci. In: *Gram Positive pathogens*. ASM Press, Washington DC, USA.
10. **Lemos JA**, Palmer SR, Zeng L, Wen ZT, Kajfasz JK, Freires IA, Abranches J and Brady LJ. (2020). Chapter 27. The Biology of *Streptococcus mutans*. In: *Gram Positive pathogens*. ASM Press, Washington DC, USA.



11. Lam, LN, Brunson, DN, Kajfasz, JK and **Lemos JA**. *Galleria mellonella* (greater wax moth) as a model for *Enterococcus faecalis* virulence. Bacterial Virulence –In: Methods in Molecular Biology: *Bacterial Virulence - Methods and Protocols*. Springer Nature.

## FELLOWSHIPS, HONORS AND SCIENTIFIC SOCIETIES

- Doctoral fellowship from CNPq (Brazil) - 1995 - 2000
- Master fellowship from CAPES (Brazil) - 1993 - 1995
- Postgraduate international exchange fellowship from CAPES (Brazil) - 1997 - 1998
- Research fellowship from CNPq (Brazil) - 1991 - 1993
- Recipient American Society for Microbiology, Competitive Travel Fellowship Award, ASM Mini-course Molecular Aspects of Microbial Pathogenesis, Santiago de Chile (Chile). Dec,1999
- Recipient American Society for Microbiology, Competitive Travel Fellowship Award; 5<sup>th</sup> ASM Conference on Streptococcal Genetics, Vichy (France). April 1998
- Member of the International Association of Dental Research since 2002
- Member of the American Society for Microbiology since 1994
- Member of the Brazilian Society for Microbiology since 1999
- Chair of the Rochester Section of the American Association for Dental Research- 2011-2012
- Co-chair Rochester Conference on Oral Biology: Post-genomics for the oral microbiome. Rochester, NY. June 2011.
- Session Convener 4<sup>th</sup> ASM Conference on Enterococci, Cartagena, Colombia. March 2014
- Vice-president AADR Microbiology/Immunology Group                    2018-2019
- President-elect AADR Microbiology/Immunology Group                    2019-2020
- President AADR Microbiology/Immunology Group                    2020-2021

## SCIENTIFIC JOURNAL REFEREEING

- Guest Editor mBio – 2019
- Editorial Board of Molecular Oral Microbiology – 2015 - present
- Editorial Board of PLoS One – 2014 – present
- Guest Editor Frontiers Microbiology, Microbial Physiology and Metabolism section – 2018 - present
- Editorial Board of Frontiers in Cellular and Infection Microbiology – 2012 - 2017
- Editorial Board of International Journal of Bacteriology – 2012 – 2016
- *Ad hoc* reviewer for mBio, mSphere, Molecular Microbiology, Proceedings of the National Academy of Sciences(PNAS), PLoS Pathogens, PLoS Genetics, Nature Communications, Trends Microbiology, Journal of Bacteriology, Infection and Immunity, Microbiology, eLIFE, mSystems, Cellular Microbiology, Virulence, BMC Genomics, BMC Microbiology, PLoS One, FEMS Microbiology Letters, Molecular Oral Microbiology, Scientific Reports, Journal of Oral Sciences, Archives of Oral Biology, Research in Microbiology, FEMS Immunology Medical Microbiology, Letters of Applied Microbiology, among others.

## GRANT REVIEWER

### NIH

2020 – National Institute of Allergy and Infectious Diseases (NIAID/ NIH) – Bacterial

Pathogenesis (BACP) study section (Standing member, February 2020)  
2019 – National Institute of Allergy and Infectious Diseases (NIAID/ NIH) – Bacterial Pathogenesis (BACP) study section (Standing member, October 2019)  
2019 – National Institute of Allergy and Infectious Diseases (NIAID/ NIH) – Bacterial Pathogenesis (BACP) study section (Standing member, February 2019)  
2018 – National Institute of Allergy and Infectious Diseases (NIAID/ NIH) – Bacterial Pathogenesis (BACP) study section (Standing member, October 2018)  
2018 – National Institute of Allergy and Infectious Diseases (NIAID/ NIH) – Bacterial Pathogenesis (BACP) study section (Standing member, February 2018)  
2017 – National Institute of Allergy and Infectious Diseases (NIAID/ NIH) – Bacterial Pathogenesis (BACP) study section (Standing member, October 2017)  
2016 – National Institute of Dental and Craniofacial Research (NIDCR/NIH) – Oral, Dental and Craniofacial Sciences (ODCS) study section (Temporary member, October 2016)  
2016 – National Institute of Allergy and Infectious Diseases (NIAID/ NIH) – Prokaryotic Cell and Molecular Biology (PCMB) study section (Temporary member, June 2016)  
2016 – National Institute of Allergy and Infectious Diseases (NIAID/ NIH) – Bacterial Pathogenesis (BACP) study section (Temporary member, February 2016)  
2015 – National Institute of Dental and Craniofacial Research (NIDCR/NIH) Special Grants Review (Temporary member, June 2015)

### **Other**

2018 – European Research Council  
2017 – Fonds de la Recherche Scientifique – Welbio Research Grant (Belgium)  
2017 – BUILD EXITO at Portland State University  
2017 – Netherlands Organisation for Scientific Research  
2016 – European Research Council  
2014 – Israel Science Foundation  
2013 – Hong Kong Research Grants Council  
2013 – National Science Center Poland  
2013 – Israel Science Foundation  
2009 – The Wellcome Trust/DBT India Alliance  
2014 – US Army Research Office  
2005 – USDA Bioactive Food Components for Optimal Health Section

## **INVITED ORAL PRESENTATIONS**

### **SCIENTIFIC MEETINGS**

2019 – 30<sup>th</sup> Brazilian Congress of Microbiology - Maceió, Brazil  
Metal ion tug of war in enterococcal infections  
2019 – 30<sup>th</sup> Brazilian Congress of Microbiology - Maceió, Brazil  
The intermingling of nutrient stress tolerance and pathogenesis in *Enterococcus faecalis*  
2019 – NIH-NIDDK CAUTI Technology Workshop – NIH, Bethesda, MD  
Metal ion tug of war in CAUTI  
2018 – 96<sup>th</sup> International Association of Dental Research – London, UK  
Characterization of stress responses in *Streptococcus mutans* as a way to identify new druggable targets in pathogenic bacteria  
2018 – 5<sup>th</sup> International Conference on Enterococci – Chamonix, France  
The road from (p)ppGpp to metal homeostasis  
2017 – 103<sup>rd</sup> ASM Southeastern Branch – St. Petersburg, FL.  
Manganese acquisition is essential for the virulence of *Enterococcus faecalis*

- 2015 – 25<sup>th</sup> Annual Meeting of the Oral Immunology Microbiology Research Group (14<sup>th</sup> Mark Wilson Conference) – San Juan, PR  
The Spx Transcriptional Regulators of *Streptococcus mutans* interact with RNAP to activate detoxification and DNA repair pathways
- 2014 – 114<sup>th</sup> ASM General Meeting – Boston, MA  
(p)ppGpp metabolism in *Enterococcus faecalis*: beyond the stringent response
- 2014 – 4<sup>th</sup> ASM Conference on Enterococi – Cartagena, Colombia  
(p)ppGpp metabolism in *Enterococcus faecalis*: beyond the stringent response
- 2013 – 23<sup>rd</sup> Annual Meeting of the Oral Immunology Microbiology Research Group (12<sup>th</sup> Mark Wilson Conference) – San Juan, PR  
Role of two Spx-like regulators of *Streptococcus mutans* in fitness and virulence
- 2012 – 28<sup>th</sup> Symposium on Genetics of Microorganisms - Iguazu Falls, Brazil  
Effects of basal levels of (p)ppGpp and the stringent response on the transcriptome of *Enterococcus faecalis*.
- 2011 – Conference on Oral Biology: Post-genomics for the oral microbiome – Rochester, NY  
The tale of a survivor: how *Enterococcus faecalis* emerges from commensal to a life-threatening pathogen
- 2008 - International Conference on Gram-positive Pathogens – Omaha, Nebraska  
The stringent response of *Enterococcus faecalis*
- 2007 - 24<sup>th</sup> Brazilian Congress of Microbiology - Brasília, Brazil  
*Streptococcus mutans*: regulation of gene expression
- 2006 - 7<sup>th</sup> ASM Conference Streptococcal Genetics – St. Malo, France  
The stress regulon of *S. mutans* and its relationship to biofilm growth and maturation
- 2001 - 21<sup>th</sup> Brazilian Congress of Microbiology - Iguazu Falls, Brazil  
Stress gene regulation in *Streptococcus mutans*

### **UNIVERSITIES AND OTHER INSTITUTIONS**

- 2020 – Virtual Streptococcal Seminar series – Zoom presentation  
Insights into the significance of metal trafficking to the pathophysiology of *Streptococcus mutans*
- 2019 – University of South Florida – Tampa, FL  
The road from (p)ppGpp regulation to metal ion homeostasis in enterococcal pathogenesis
- 2019 – Albany Medical College – Albany, NY  
Metal ion tug of war in enterococcal infections
- 2017 – University of Oslo – Oslo, Norway  
Peroxide stress responses of *Streptococcus mutans*: lessons from the other Gram-positive paradigm
- 2016 – University of Texas Medical School at Houston – Houston, TX  
(p)ppGpp in *Enterococcus faecalis*: Beyond the stringent response and towards regulation of metal homeostasis
- 2016 – University of Florida College of Veterinary Medicine – Gainesville, FL  
(p)ppGpp in *Enterococcus faecalis*: Beyond the stringent response and towards regulation of metal homeostasis
- 2015 – University of Tennessee - Knoxville, TN  
Production of (p)ppGpp in *Enterococcus faecalis*: magic beyond the stringent response
- 2014 – University of Florida – Gainesville, FL  
(p)ppGpp metabolism in the opportunistic pathogen *Enterococcus faecalis*: magic beyond the stringent response
- 2014 – University of West Indies, Barbados.  
Open Lecture: From Toothache to Heartache: Role of Oral Bacteria in Human Diseases

- 2014 – University of West Indies, Barbados  
(p)ppGpp Production in *Enterococcus faecalis*: Magic Beyond the Stringent Response
- 2012 – University of Buffalo – Buffalo, NY  
The ClpXP protease and the Spx regulator control the expression of key virulence traits in *Streptococcus mutans*
- 2011 – University of São Paulo – São Paulo, Brazil  
Stress gene regulation in *Streptococcus mutans*
- 2011 – University of Campinas – Piracicaba, Brazil  
Stress gene regulation in *Streptococcus mutans*
- 2011 – Federal University of Rio de Janeiro, Brazil – Rio de Janeiro, Brazil  
The tale of a survivor: how *Enterococcus faecalis* emerges from commensal to a life-threatening pathogen
- 2010 – University of Florida - Gainesville, FL  
Two Spx proteins modulate stress tolerance and virulence of the dental pathogen *Streptococcus mutans*
- 2010 – Oregon Health and Science University – Portland, OR  
Two Spx proteins modulate stress tolerance and virulence of the dental pathogen *Streptococcus mutans*
- 2008 – National Institute of Health – Bethesda, MA  
Role of (p)ppGpp in stress survival, antibiotic tolerance and virulence in *Enterococcus faecalis*
- 2006 – University of Rochester – Rochester, NY  
The stress regulon of *Streptococcus mutans* and its relationship to biofilm growth and maturation
- 2006 – University of Oklahoma – Oklahoma City, OK  
The stress regulon of *Streptococcus mutans* and its relationship to biofilm growth and maturation

## **INSTITUTIONAL SERVICE**

### **University of Florida**

- Concentration Co-ordinator, Graduate Program in Biomedical Sciences (2020 – present)
- UF Faculty Senate (2019 – present)
- UFCD Oral Biology Faculty Search Committee Chair – 2019
- UFCD Faculty Development (2018 – present)
- UFCD Research Committee – 2016 – 2018, Vice-chair 2017-2018
- UFCD Research Workgroup for Strategic Planning (2017)

### **University of Rochester**

- Institutional Biosafety Committee (IBC) – 2009 – 2015
- Committee on Graduate Studies (CGS) – 2010 – 2011
- Eastman Institute of Oral Health Faculty Retention Committee – 2011 – 2012
- Post-baccalaureate Research Education Program Steering Committee – 2013 – 2015
- PhD Admissions Committee (Microbiology and Immunology) – 2013 – 2014
- PhD Recruitment Committee (Microbiology and Immunology) – 2014 – 2015

## **GRADUATE STUDENTS**

### **University of Florida**

1. Cristina Colomer-Winter – PhD (BMS Program, Microbiology), 2014 – 2018  
Current position: Sterility Assurance Consultant (Boehringer Ingelheim, Spain)
2. Debra Brunson - PhD (BMS Program, Microbiology concentration), 2018 –
3. Alexandra Peterson – PhD (BMS Program, Microbiology concentration), 2020 –

### **University of Rochester**

1. Alejandro Aviles-Reyes – PhD (Microbiology and Immunology), 2011 – 2015  
Current position: Scientist in Quality Control (Cytovance, Oklahoma City, OK)
2. Isamar Rivera-Ramos – PhD (Microbiology and Immunology), 2007 – 2014  
Current position: Assistant Professor (Univ. of Rochester, Rochester, NY)
3. Anthony O. Gaca – PhD (Microbiology and Immunology), 2008 – 2013  
Current position: Research Scientist (Microbial 'omics core, Broad Institute, Boston, MA)

### **POSTDOCTORAL TRAINEES**

1. Jessica Kajfasz – 2007-2012  
Current position: Research Assistant Professor (Univ. Florida, Gainesville, FL)
2. Anthony O. Gaca – 2013 – 2015  
Current position: Research Scientist (Microbial 'omics core, Broad Institute, Boston, MA)
3. Sarah Saputo – 2014 – 2015  
Current position: Assistant Professor (The College at Brockport, State Univ. of New York, Rochester, NY)
4. Alejandro Aviles-Reyes – 2015-2016 (Co-mentor with Dr. Jacqueline Abranches)  
Current Position: Scientist in Quality Control (Cytovance, Oklahoma City, OK)
5. Tridib Ganguly – 2016 – 2019  
Current position: Research Assistant Scientist (Univ. of Florida, Gainesville, FL)
6. Shivani Kundra – 2017 – 2019  
Current position: Research Scientist (British Columbia Univ., Vancouver, Canada)
7. Ling Ning (Kaylie) Lan – 2019 – present
8. Leila Casella – 2019 - present

### **OTHER STUDENTS**

#### **University of Florida**

1. Andres Arrocha – 2015/2016 – Univ. of Florida Undergraduate Student (Biochemistry Major)
2. Eric Rabinowitz – 2016 UFCD Summer Research Program
3. Giovanna Quiroz – 2017 UFCD Summer Research Program
4. Diana Arrocha – 2017-2018 – Univ. of Florida Undergraduate Student (Psychology Major)
5. Eshani Shah – 2018-present – Univ. of Florida Undergraduate Student (Microbiology Major)
6. Shannon Emmanuel – PhD Student (Lab Rotation)
7. Marissa Burkholder – 2019 UFCD Summer Research Program
8. Lindsey Brinkley – 2019-present – Univ. of Florida Undergraduate Student (Microbiology Major)

9. Dhuv Patel – 2019 – present - Univ. of Florida Undergraduate Student (Biology Major)
10. Jasmine Tram – 2019 – present - Univ. of Florida Undergraduate Student (Microbiology Major)
11. Brooke Ritchie – 2020 – present - Univ. of Florida Undergraduate Student (Microbiology Major)

### **University of Rochester**

1. Isadora Gonzalez (Univ. Puerto Rico) – 2008 Oral Biology Summer Research Training Program
2. Naira Elane Moreira de Oliveira (Univ. Rio de Janeiro, Brazil) – 2009 - Research Scholar
3. Akeisha Sanders – 2009 –PhD Student (Lab Rotation)
4. Yiheng Jang – 2009 – Univ. Rochester Undergraduate Student (Microbiology Major)
5. Kaisha Gonzalez – 2010 – PhD Student (Lab Rotation)
6. Ingrid Carvo – 2010/2011 – Univ. Rochester Undergraduate Student (Microbiology Major)
7. Angie Santiago-Zayas – 2010 Summer Undergraduate Research Fellowship (SURF) Program
8. Jorge Mendoza – 2010/2011 – Post-baccalaureate Research Education Program (PREP)
9. Leila Soto – 2011 - Oral Biology Summer Research Training Program
10. Kendrick Law – 2011 Summer Undergraduate Research Fellowship (SURF) Program
11. Pamella Tijerina - (2011) – Post-baccalaureate Research Education Program (PREP)
12. Lauren Forbes (2012) – Univ. Rochester Undergraduate Student (Microbiology Major)
13. Amundam Mancho – 2012 Summer Undergraduate Research Fellowship (SURF) Program
14. Jackeline Palencia – 2012 Research Experiences for Undergraduates (REU) Program
15. Lívia C. C. Galvão –2012/2013 – University of Campinas, Brazil, Research Scholar
16. Lauren Rice – 2014 –PhD Student (Lab Rotation)

## **GRADUATE STUDENT COMMITTEES**

### **University of Florida**

1. Austin Sheppe, PhD Candidate, Microbiology (2016 – 2017) - Committee member
2. Matthew Turner, PhD Candidate, Microbiology (2016 – present) - Committee member
3. Jacob Otis, MS Dental Sciences (2017 – 2019) - Committee member
4. Fransisco Gari, MS Dental Sciences (2016-2108) - Committee member
5. Jeffrey Westra, MS Dental Sciences (2019- present) - Committee member

### **University of Rochester**

1. Matthew McGilvray, MS Candidate, Microbiology (2009 – 2011) - Committee member
2. Adam Derr, PhD Candidate, Microbiology (2006 – 2012) - Committee member
3. Brendaliz Santiago, PhD Candidate, Microbiology (2007 – 2012) - Committee member
4. Kaisha Gonzalez, PhD Candidate, Microbiology (2008 – 2012) - Committee member

5. Punsiri Mahendra Colonne, PhD Candidate, Pathology (2010 – 2012) - Committee member
6. Andrew Buckley, PhD Candidate, Microbiology (2008 – 2014) - Committee member
7. Mudit Chaand, PhD Candidate, Microbiology (2008 – 2014) - Committee member
8. Kelly Vore, PhD Candidate, Microbiology (2009 – 2015) - Committee member
9. Sara Snell, PhD Candidate, Microbiology (2011 – 2015) - Committee member
10. Benjamin Cross, PhD Candidate, Microbiology (2011 – 2015) - Committee member
11. Jing Zhu, PhD Candidate, Biology (2007 – 2013) - Chair of final oral examination
12. Jonathon Baker, PhD Candidate, Microbiology (2012- 2015) – Committee member
13. Lauren Rice, PhD Candidate, Microbiology (2014- 2015) – Committee member

## **POSTDOC FELLOW MENTORING COMMITTEE**

### **University of Florida**

1. Justin Kaspar (Department of Oral Biology) – 2019-2020
2. Sabarathnam Balu (Department of Oral Biology) – 2019-present
3. Surabhi Mishra (Department of Oral Biology) – 2019-present

## **TEACHING ACTIVITIES**

### **University of Florida**

#### **2020**

DEN 6681 – Craniofacial Pathology (1 lecture) – DDS students  
 DEN5127 – Infectious Diseases (Course Co-director)  
 DEN5127 – Infectious Diseases (7 lectures) – DDS students

#### **2019**

DEN8290 – Discussion of Research Interests (1 lecture) – DDS students  
 DEN 6681 – Craniofacial Pathology (1 lecture) – DDS students  
 DEN5127 – Infectious Diseases (Course Co-director)  
 DEN5127 – Infectious Diseases (7 lectures) – DDS students

#### **2018**

DEN 6681 – Craniofacial Pathology (1 lecture) – DDS students  
 DEN5127 – Infectious Diseases (Course Co-director)  
 DEN5127 – Infectious Diseases (7 lectures) – DDS students  
 DEN8290 – Discussion of Research Interests (1 lecture) – DDS students

#### **2017**

DEN 6681 – Craniofacial Pathology (1 lecture) – DDS students  
 DEN5127 – Infectious Diseases (Course Co-director)  
 DEN5127 – Infectious Diseases (4 lectures) – DDS students  
 DEN8290 – Discussion of Research Interests (1 lecture) – DDS students  
 CDP29 – Continuous Dental education (Basic Science module: Microbiology of Dental Caries)

#### **2016**

DEN 6681 – Craniofacial Pathology (1 lecture) – DDS students  
 DEN5127 – Infectious Diseases (3 lectures) – DDS students

## **University of Rochester**

### 2015

Microbial Pathogenesis – MBI414 (2 lectures) - Graduate and undergraduate students

### 2014

Microbial Physiology – MBI431 (6 lectures) - Graduate and undergraduate Students

Microbial Physiology Seminar Series – MBI 431/MBI 570

Cariology – ORB580 (2 lectures) - DDS residents

### 2013

Microbial Pathogenesis – MBI414 (3 lectures) - Graduate and undergraduate students

Oral Microbiology – MBI581/DEN493 (3 lectures) - Graduate and undergraduate students

Cariology – ORB580 (2 lectures) - DDS residents

Pharmacology and Therapeutics – ORB563 (1 lecture) - DDS residents

### 2012

Microbial Physiology – MBI431 (6 lectures) - Graduate and undergraduate Students

Microbial Physiology Seminar Series – MBI 431/MBI 570

### 2011

Microbial Pathogenesis – MBI414 (4 lectures) - Graduate and undergrad. students

Microbial Pathogenesis Seminar Series – MBI514/570

Oral Surgery Residents Grand Rounds (1 lecture) – DDS residents

Oral Microbiology – MBI581/DEN493 (3 lectures) - Graduate and undergraduate students

Course: Pharmacology and Therapeutics – ORB563 (1 lecture) - DDS residents

### 2010

Microbial Physiology – MBI431 (6 lectures) - Graduate and undergrad. Students

Microbial Physiology Seminar Series – MBI 431/MBI 570

### 2009

Microbial Pathogenesis – MBI414 (1 lecture) - Graduate and undergrad. students

Microbial Pathogenesis Seminar Series – MBI514/570

Host-defense Problem-based Learning (PBL) - MD Students

Oral Microbiology – MBI581/DEN493 (3 lectures) - Graduate and undergraduate students

Pharmacology and Therapeutics – ORB563 (1 lecture) - DDS residents

### 2008

Microbial Physiology – MBI431 (2 lectures) - Graduate and undergraduate students

Microbial Physiology Seminar Series – MBI 431/MBI 570

## **OTHER EXTRAMURAL ACTIVITIES**

- External Faculty Promotion Reviewer – Institut Pasteur (France) – 2019
- Committee member (Opponent) for examination of doctoral degree (Doctor of Dental Surgery), University of Oslo (Oslo, Norway) June 2017  
Dissertation title: Studies on Streptococcal cell-to-cell signaling systems and host interactions.  
Candidate: Roger Junges
- Course Director – Mechanisms of Virulence of Gram-positive Cocci. (Course directors -



Abranches J., Giambiagi deMarval M and Lemos J). Federal University of Rio de Janeiro (Rio de Janeiro, Brazil) – November 2011 (Invited Professor and coordinator of a week-long (40 h) course ministered to Graduate students from different Schools in Brazil).

- External Examiner for The University of the West Indies (Barbados) – 2011 – 2017