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# S. John Calise

*NSF Graduate Research Fellow*  
[Laboratory of Edward K.L. Chan, PhD](#)  
Department of Oral Biology  
Interdisciplinary Program in  
Biomedical Sciences

## EDUCATION

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<b>University of Florida Gainesville, FL</b>	Graduate Student / Research Assistant Interdisciplinary Program in Biomedical Sciences Concentration: Molecular Cell Biology Mentor: Edward K.L. Chan, PhD	<b>Aug 2015 – present</b>
<b>University of Florida Gainesville, FL</b>	B.S. in Business Administration Major: Finance Graduated with Honors	<b>Aug 2007 – May 2011</b>

## PREVIOUS RESEARCH POSITIONS

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<b>University of Florida Gainesville, FL</b>	Laboratory Manager Laboratory of Edward K.L. Chan, PhD Department of Oral Biology	<b>Sept 2011 – Aug 2015</b>
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## UNDERGRADUATE MENTORING EXPERIENCE

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### Mentored four undergraduate research assistants:

▪ Ms. Thuy Nguyen, co-author on Calise et al. <i>J Cell Sci</i> and Calise et al. <i>Autoimmun Highlights</i> .	<b>2013 – 2016</b>
▪ Ms. Dania A. Saleem, co-author on Calise et al. <i>J Cell Sci</i> .	<b>2013 – 2015</b>
▪ Ms. Joyce D. Yin, co-author on Calise et al. <i>Cell Mol Life Sci</i> . and Calise et al. <i>J Cell Sci</i> . Current position: DMD student at University of Pennsylvania, Philadelphia, PA.	<b>2013 – 2014</b>
▪ Ms. Claire Krueger, co-author on Calise et al. <i>Cell Mol Life Sci</i> . and Calise et al. <i>J Cell Sci</i> . Current position: DDS student at Virginia Commonwealth University, Richmond, VA.	<b>2012 – 2013</b>

## HONORS AND AWARDS (GRADUATE AND PROFESSIONAL)

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- National Science Foundation Graduate Research Fellowship recipient for the proposal *Determining the role of IMPDH filaments in mammalian guanine nucleotide homeostasis*, salary support for 3 years, March 2017
- Recipient of a 2017 Early Career Meeting Grant from the American Society for Cell Biology, to organize and host a student-run conference on campus; Florida Translational Cell Biology Symposium scheduled for September 2017
- Pre-doctoral Fellow, Department of Oral Biology NIH Training Grant 2T90DE021990-06, Aug 2016 – present
- American Society for Cell Biology Graduate Student Travel Award, December 2015
- University of Florida Graduate School Grinter Fellowship Award 2015 – 2018 (scholarship)
- 2<sup>nd</sup> Place, IWAA Prize for Oral & Poster Communication at the 12<sup>th</sup> International Workshop on Autoantibodies and Autoimmunity, São Paulo, Brazil, August 2014
- 1<sup>st</sup> Place, Dresden Prize for the Study of Autoantibodies at the 11<sup>th</sup> Dresden Symposium on Autoantibodies, Dresden, Germany, September 2013

## HONORS AND AWARDS (UNDERGRADUATE)

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- Graduated with Honors (Cum Laude), University of Florida, May 2011
- Warrington College of Business Administration Dean's List (multiple semesters)

- University of Florida Honors Program Member, 2007 – 2011
- Beta Gamma Sigma International Honor Society
- Golden Key International Honour Society
- National Society of Collegiate Scholars
- Florida Academic Scholars Award (full tuition paid), 2007 – 2011

## **PROFESSIONAL SOCIETY MEMBERSHIPS**

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- American Society for Cell Biology, 2015 – present
- American Association for the Advancement of Science, 2017 – present

## **PEER REVIEW EXPERIENCE**

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- Assisted PI in reviewing nine manuscripts for *Clinica Chimica Acta*, *Critical Reviews in Biochemistry and Molecular Biology*, *European Journal of Immunology*, *Experimental Cell Research*, *Journal of Autoimmunity*, *Journal of Cell Science* (2), *Journal of Medical Virology*, and *Journal of Viral Hepatitis*.
- Assisted PI in reviewing two grant applications submitted to the Prinses Beatrix Spierfonds, an independent financial supporter for neuromuscular research in the Netherlands, and the French National Research Agency (ANR).

## **SERVICE AND LEADERSHIP**

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- Co-Organizer, keynote speaker invitation for Molecular Cell Biology concentration Planning speaker visit for Spring 2018 semester; Co-organizer: Iqbal Mahmud **March 2017 – present**
- Co-Chair, Organizing Committee, Florida Translational Cell Biology Symposium Conference scheduled for September 2017 in Gainesville, FL; Co-Chair: Joseph Black **Feb 2017 – present**
- Recruitment Weekend and Graduate Education Fair Volunteer Meeting with PhD program applicants to answer questions and give advice **Jan 2017 – Feb 2017**
- Graduate Student Representative, Department of Oral Biology Attend monthly department faculty meetings to represent student interests **Jan 2017 – present**
- Organizer, speaker invitations for GMS6193 Oral Biology Research Conference Responsible for inviting guest speakers Dr. Brent Christner (UF), Dr. David Wong (UCLA), and Dr. Zemer Gitai (Princeton) for Fall 2016, Spring 2017, Fall 2017 semesters **Aug 2016 – present**
- Grants Evaluator, UF Graduate Student Council Grants Committee Monthly peer review of university-wide travel grants submitted by graduate students **July 2016 – present**
- First Year PhD Student Mentoring Program (IDP Welcome Buddy) Assisting incoming students with their transition to graduate school and UF **June 2016 – Sep 2016**
- Web Designer and Webmaster, [AutoAb.org](http://AutoAb.org) Autoantibody Standardization Committee in Rheumatic and Related Disorders of the International Union of Immunological Societies, World Health Organization, Arthritis Foundation, and Centers for Disease Control and Prevention **Oct 2011 – present**

## **PEER-REVIEWED ORIGINAL RESEARCH ARTICLES (REVERSE CHRONOLOGICAL ORDER)**

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[Google Scholar](#) and [My NCBI Bibliography](#)

[As of 04/14/2017] Total citations: 111, h-index: 7, i10-index (# of publications with  $\geq 10$  citations): 5

6. **Calise SJ**, Bizzaro N, Nguyen T, Bassetti D, Porcelli B, Almi P, Barberio G, Pesce G, Satoh M, and Chan EKL. Anti-rods/rings autoantibody seropositivity does not affect response to telaprevir treatment for chronic hepatitis C infection. *Autoimmun Highlights*. 2016 Dec; 7(1):15. [PubMed](#)
5. **Calise SJ**, Purich DL, Nguyen T, Saleem DA, Krueger C, Yin JD, and Chan EKL. ‘Rod and ring’ formation from IMP dehydrogenase is regulated through the one-carbon metabolic pathway. *J Cell Sci*. 2016 Aug 1; 129(15):3042-3052. [PubMed](#)
4. Chukkapalli S, Rivera-Kweh M, Gehlot P, Velsko I, Bhattacharyya I, **Calise SJ**, Satoh M, Chan EKL, Holoshitz J, and Kesavalu L. Periodontal bacterial colonization in synovial tissues exacerbates collagen-induced arthritis in B10.RIII mice. *Arthritis Res Ther*. 2016 Jul 12; 18(1):161. [PubMed](#)
3. Keppeke GD, **Calise SJ**, Chan EKL, and Andrade LE. Assembly of IMPDH2-based, CTPS-based, and mixed rod/ring structures is dependent on cell type and conditions of induction. *J Genet Genomics*. 2015 Jun 20; 42(6):287-299. [PubMed](#)
2. **Calise SJ\***, Carcamo WC\*, Krueger C, Yin JD, Purich DL, and Chan EKL. Glutamine deprivation initiates reversible assembly of mammalian rods and rings. *Cell Mol Life Sci*. 2014 Aug; 71(15):2963-73. \*co-first author [PubMed](#)
1. Carcamo WC, Ceribelli A, **Calise SJ**, Krueger C, Liu C, Daves M, Villalta D, Bizzaro N, Satoh M, and Chan EKL. Differential reactivity to IMPDH2 by anti-rods/rings autoantibodies and unresponsiveness to pegylated interferon-alpha/ribavirin therapy in US and Italian HCV patients. *J Clin Immunol*. 2013 Feb; 33(2):420-6. [PubMed](#)

#### **REVIEW ARTICLES, BOOK CHAPTERS, AND PROCEEDINGS (REVERSE CHRONOLOGICAL ORDER)**

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6. Satoh M, Tanaka S, Ceribelli A, **Calise SJ**, and Chan EKL. A Comprehensive Overview on Myositis-Specific Antibodies: New and Old Biomarkers in Idiopathic Inflammatory Myopathy. *Clin Rev Allergy Immunol*. 2017 Feb; 52(1):1-19. [PubMed](#)
5. Keppeke GD, **Calise SJ**, Chan EKL, and Andrade LE. Anti-rods/rings autoantibody generation in hepatitis C patients during interferon- $\alpha$ /ribavirin therapy. *World J Gastroenterol*. 2016 Feb 14; 22(6):1966-74. [PubMed](#)
4. **Calise SJ**, Keppeke GD, Andrade LE, and Chan EKL. Anti-rods/rings: a human model of drug-induced autoantibody generation. *Front Immunol*. 2015 Feb 5; 6:41. [PubMed](#)
3. **Calise SJ**, Carcamo WC, Ceribelli A, Dominguez Y, Satoh M, and Chan EKL. Antibodies to Rods and Rings. In *Autoantibodies* (Shoenfeld Y, Gershwin ME, Meroni PL, Eds.), pp. 161-168. Elsevier Science, Third Edition, 2014. [ScienceDirect](#)
2. Carcamo WC\*, **Calise SJ\***, von Mühlen CA, Satoh M, and Chan EKL. Molecular cell biology and immunobiology of mammalian rod/ring structures. *Int Rev Cell Mol Biol*. 2014; 308:35-74. \*co-first author [PubMed](#)
1. **Calise SJ**, Carcamo WC, and Chan EKL. Clinical implications of anti-rods and rings autoantibodies in hepatitis C patients treated with interferon/ribavirin therapy. In *Infection, Tumors and Autoimmunity – Report on the 11th Dresden Symposium on Autoantibodies* (Conrad K, Chan EKL, Fritzler MJ, Humbel RL, Meroni PL, Steiner G, Shoenfeld Y, Eds.), Pabst Science Publishers, Lengerich, Germany, 2013.

#### **NATIONAL AND INTERNATIONAL PRESENTATIONS (REVERSE CHRONOLOGICAL ORDER)**

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5. **Calise SJ** and Chan EKL. IMP dehydrogenase forms filaments in response to dysregulation of guanine nucleotide homeostasis. 25<sup>th</sup> Enzyme Mechanisms Conference, St. Pete, FL; Jan 4-8, 2017. [Poster presentation](#).
4. **Calise SJ**, Nguyen T, and Chan EKL. A novel component of autoantigenic ‘rod and ring’ intracellular structures. The 13<sup>th</sup> International Workshop on Autoantibodies and Autoimmunity, Kyoto, Japan; Oct 11-13, 2016. [Poster presentation](#).

3. **Calise SJ**, Nguyen T, Saleem DA, Krueger C, Yin JD, Purich DL, and Chan EKL. Blockage of folate metabolism activates polymerization of rod/ring structures in mammalian cells. American Society for Cell Biology Annual Meeting, San Diego, CA; Dec 12-16, 2015. Poster presentation.
2. **Calise SJ**, Krueger C, Yin JD, Saleem DA, Nguyen T, and Chan EKL. Assembly of autoantigenic rods/rings induced by serine deprivation is further promoted by glycine supplementation. The 12<sup>th</sup> International Workshop on Autoantibodies and Autoimmunity, São Paulo, Brazil; Aug 28-30, 2014. Oral and poster presentations.
1. **Calise SJ**, Carcamo WC, Krueger C, Purich DL, and Chan EKL. Effects of intracellular glutamine levels on the reversible assembly of cytoplasmic rod and ring autoantigenic structures. The 11<sup>th</sup> Dresden Symposium on Autoantibodies, Dresden, Germany; Sept 1-4, 2013. Oral and poster presentations.

#### **LOCAL CONFERENCE PRESENTATIONS (REVERSE CHRONOLOGICAL ORDER)**

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5. **Calise SJ** and Chan EKL. IMP dehydrogenase forms filaments in response to dysregulation of guanine nucleotide homeostasis. UF College of Dentistry Spring Synergy, Gainesville, FL; Mar 31, 2017. Poster presentation.
4. **Calise SJ**, Nguyen T, Saleem DA, Krueger C, Yin JD, Purich DL, and Chan EKL. Blockage of folate metabolism activates polymerization of rod/ring structures in mammalian cells. UF College of Dentistry Spring Synergy, Gainesville, FL; Apr 1, 2016. Poster presentation.
3. **Calise SJ**, Krueger C, Yin JD, Saleem DA, Nguyen T, and Chan EKL. Assembly of autoantigenic rods/rings induced by serine deprivation is further promoted by glycine supplementation. UF College of Dentistry Spring Synergy, Gainesville, FL; Apr 10, 2015. Poster presentation.
2. **Calise SJ**, Carcamo WC, Krueger C, Yin JD, Purich DL, and Chan EKL. Glutamine deprivation initiates reversible assembly of mammalian rods and rings. UF College of Medicine Celebration of Research, Gainesville, FL; Mar 31, 2014. Poster presentation.
1. **Calise SJ**, Krueger C, Carcamo WC, Yin JD, Purich DL, and Chan EKL. Factors affecting the formation of cytoplasmic rods and rings in cultured cells. UF College of Dentistry Spring Synergy, Gainesville, FL; Apr 5, 2013. Poster presentation.

#### **PUBLISHED ABSTRACTS CO-AUTHORED (REVERSE CHRONOLOGICAL ORDER)**

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5. Tanaka S, **Calise SJ**, Satoh Y, Tanaka Y, Vazquez-Del Mercado M, Medrano-Ramirez G, Sobel ES, Reeves WH, Chan EKL, and Satoh M. Cohesin Complex is a New Myositis Autoantigen. *Arthritis Rheumatol.* 2015 Oct 1; 67.
4. Chukkapalli S, Rivera-Kweh M, Velsko I, Bhattacharyya I, **Calise SJ**, Chan EKL, Satoh M, and Kesavalu L. Active Invasion of Periodontal Bacteria into Synovial Joint Exacerbates Collagen-Induced Arthritis in Disease-Prone B10 RIII Mice. *Arthritis Rheumatol.* 2014 Oct 1; 66:S416.
3. Satoh M, Vera-Lastra O, Martinez C, Sepulveda-Delgado J, Jara LJ, Vargas-Ramirez R, Martin-Marquez BT, **Calise SJ**, Chan EKL, and Vazquez-Del Mercado M. Specificity Of Autoantibodies In Patients With Rheumatologic Inflammatory Syndrome Following Mineral Oil Injections Is Similar To Those In Mice With Adjuvant Mineral Oil Induced Autoimmunity. *Arthritis Rheum.* 2013 Oct 1; 65:S11.
2. Vazquez-Del Mercado M, Daneri-Navarro A, Martin-Marquez BT, Vargas-Ramirez R, Velasco-Sanchez D, Chan JYF, **Calise SJ**, Chan EKL, and Satoh M. Autoantibodies Associated With Inflammatory Myopathy and Other Systemic Autoimmune Rheumatic Diseases In Sera From Breast Cancer Patients. *Arthritis Rheum.* 2013 Oct 1; 65:S881-S882.
1. Chauffe AD, Sobel ES, Bubb MR, Reeves WH, Mahler M, Gascon C, Chan JYF, **Calise SJ**, Chan EKL, and Satoh M. Anti-Th/To Antibodies In Various Systemic Rheumatic Diseases Screened By Anti-Rpp25 ELISA. *Arthritis Rheum.* 2013 Oct 1; 65:S287-S288.

## **GRANTS AND FELLOWSHIPS AWARDED, AND OTHER GRANT WRITING EXPERIENCE**

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### **Active support**

#### **National Science Foundation Graduate Research Fellowship**

Title: Determining the role of IMPDH filaments in mammalian guanine nucleotide homeostasis.

Role: *Principal Investigator*

**Awarded March 2017**  
**Funding period starts Aug 2017**

#### **American Society for Cell Biology Early Career Meeting Grant**

Title: 1<sup>st</sup> Annual Florida Translational Cell Biology Symposium

Role: *Co-Chair, Conference Organizing Committee*

Committee members: *Joseph Black (co-chair), Breanna Burkes, Kristen Skruber*

*This ASCB-funded symposium will be held on September 22, 2017 in Gainesville, FL.*

**Feb 2017 – present**

#### **National Institutes of Health Pre-doctoral Fellowship under National Institute of Dental and Craniofacial Research Training Grant, Award 2T90DE021990-06**

Training Program in Oral Biology

Principal Investigator: Robert A. Burne, PhD

Role: *Trainee*

**Aug 2016 – present**

### **Pending applications**

#### **University of Florida Southeast Center for Integrated Metabolomics 2017 Pilot and Feasibility Project Application**

Principal Investigator: Edward K.L. Chan, PhD

Role: *Co-investigator*

*I wrote this grant application to the UF SECIM for funding towards establishing a targeted metabolomics-based experimental workflow in our laboratory.*

**Announced in June 2017**