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ALZHEIMER'S ASSOCIATION INTERNATIONAL CONFERENCE®
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Realistic Resumes: Introductions

Co-Chairs: Beth Eyre
Adam Smith

Panelists: Eric Dyne
Fernanda de Felice

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Eric Dyne
Introductory Email

Introduction and aim

My name is Eric Dyne, and I am a graduate student at Kent State University in Kent, Ohio. I will be **graduating with my PhD in the Spring of 2021**, and I am currently investigating postdoctoral opportunities. I am very interested in learning more about magnetic hyperthermia, and, if possible, I would like to discuss more about the research performed in your lab.

Current research

Interest in their research

Goal

My current dissertation research is investigating the phagocytic/neuroimmune response of microglia to fragmented beta-amyloid plaques after AMF-induced mild hyperthermia. We have had great success with this project. I have a vested interest in nanomagnetic medicine in the context of neurodegenerative disease. My primary training has been as a neuroscientist; however, upon joining a bioengineering immunity laboratory as a doctoral student, I have had to develop an in-depth understanding of various biomedical engineering concepts and techniques. **I see a lot of promise in nanomagnetic medicine and its application to neurological disease,** which is why I would like to continue this research in a postdoctoral position. **My goal is to be able to apply my extensive biological training to this field while expanding my biomedical engineering skill set,** and I feel that the research in your laboratory would provide me with the opportunity to do so.

Opportunity for follow-up

I appreciate you taking the time to read this email. If you think there might be a place for me in your lab, **I would welcome the opportunity to talk more with you.** I have several publications in progress - the pandemic has prevented me from completing critical experiments for these submissions. However, if you would like more details about myself or my research, I am happy to provide you with a CV and a more detailed description of my projects. Thank you for your time!

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Fernanda de Felice
Covering Letter

Overview of employment history and achievements.

I have been a **Tenured Associate Professor of Neurobiology at the Federal University of Rio de Janeiro since 2008**. In addition, in **2015 I was appointed Adjunct Faculty** in the Department of Biomedical and Molecular Sciences and cross-appointed at the Department of Psychiatry and the Centre of Neuroscience studies **at Queen's University**. In January 2017, I initiated to work at Queen's University to co-lead, along with Prof. Douglas P. Munoz, a project aimed to develop a non-human primate (NHP) model of Alzheimer's disease. Over my career, **I have published 89 articles on Alzheimer's disease and related diseases**. Some of my recent papers were published in prestigious Journals and received widespread attention from the scientific community and lay media. **My H index is 38 and my articles were cited ~ 6,300 times** (Web of Science).

Overarching research goal

Highlights and impact of research to date

My goal is to carry out translational research in Alzheimer's disease using in vitro, mouse and primate models of the disease, in order to connect the mechanisms observed in cellular and animal models of disease with clinical and cognitive observations. My research has revealed the importance of peripheryto-brain communication in brain health and disease. We have established that deficient hormonal signaling is a feature of Alzheimer's and is linked to memory loss. **In a Nature Medicine paper published last year (already with 75 citations),** we showed that irisin, a hormone produced by the muscle upon exercise, is decreased in AD brains. Irisin corrects synapse and memory defects in AD mouse models and was found to mediate the beneficial effects of exercise in memory in mice. **The potential impact of these findings has already triggered a worldwide media coverage** – both in North America (Global News story and participation as a guest in the Morning Show-Global news, The New York Times) in UK/Europe (e.g., The Daily Mail, NHS and BBC) and in South America, with 85 news outlet so far. Our findings indicate the existence of an important and yet underexplored muscle-tobrain connection, providing a new possible preventative and therapeutic angle in neurodegenerative disorders. **More recently, a study currently in press in Cell Reports** have identified palmitate as a key component of high fat diets that triggers brain inflammation and memory impairment. **These findings are contributing to development of novel concepts on how Alzheimer's may develop and are leading to preventative strategies.**

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Fernanda de Felice
Covering Letter

Collaborative work

My research program has allowed me to establish collaborations with many scientists around the world, including key collaborations in Canada and the US. I have participated in many review committees and I am aware of the many components needed for a grant to be highly ranked and attractiveness to funding agencies so that it can be successful in stiff competitions. It is now clear to me that having **a multidisciplinary approach in research and establishing the right collaborations are key components that will lead to publication of high level articles and funding.**

Mentees and their progression

I am very motivated and committed to the supervision of undergraduate and graduate students and try to stimulate creativity and accomplishments. My goal is to motivate them to reach their highest potential. **Graduate students I have mentored have been recruited to Faculty or Researcher positions in Brazil. Others have moved into professional programs (e.g., Medical School, Physiotherapy) or moved to medical industry**. Because I consider training the next generation of scientists a top priority in my professional activities, I dedicate extensive time to my trainees in all phases of career development. I observe that my younger trainees observe the success of more senior trainees, thus establishing a chain of focus-hard work-productivity in my group.

Summary

Opportunities the position would allow

I am in a productive and ascendant period of my scientific career. I have published 53 articles since 2013, many in high impact Journals as corresponding author. I am convinced that **the opportunity to be at Queen's would allow me to expand my research program and favor the production of world-class, qualified science that I constantly pursue with the greatest enthusiasm.** I would further have the opportunity to foster new collaborations that will complement my research on Alzheimer's disease. I would be glad to provide additional information you might need on this matter, and hope you will favourably consider my application.