

# Anderson Fernandes de Brito

E: andersonfbrito@gmail.com | W: <https://andersonbrito.github.io>

## EDUCATION

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- 2019 – Present**                      **Postdoctoral Associate**                      **Yale University, USA**
- Research keywords: Genomic epidemiology; Bioinformatics; Phylogenetics
- 2014 – 2018**                      **PhD in Computational Biology**                      **Imperial College London, UK**
- PhD Thesis: “Evolutionary Systems Biology of Virus-Host Interactions”, supervised by Dr John Pinney
  - Research keywords: Bioinformatics; Molecular Evolution; Phylogenetics; Structural Biology
  - Supervised research projects of MSc and Undergraduate students
  - Taught undergraduates and marked their coursework as a Teaching Assistant in Bioinformatics
- 2011 – 2013**                      **MSc in Microbiology**                      **University of São Paulo, Brazil**
- MSc Dissertation: “Genomic diversity analysis of geographic isolates of nucleopolyhedroviruses *Anticarsia gemmatalis* (AgMNPV)”, supervised by Dr Paolo Zanotto
  - Research keywords: Virology; Genome Sequencing, Assembly and Annotation; Systems Biology
  - Devised, wrote and managed a successful research grant that funded equipment and reagents for two years of MSc research (~£40,000)
- 2007 – 2010**                      **BSc (Hons) in Biological Sciences**                      **University of Brasília, Brazil**
- Research keywords: Virology; Cell Culture; DNA extraction; PCR; Entomology
  - Final degree award: 4.3 out of 5.0 (equivalent to a UK First Class Degree, or Grade A)
  - Co-organised two conferences (UnB Biology Week), with seminars and workshops for 300+ students
- 2007 – 2010**                      **Licentiate (Hons) in Biological Sciences**                      **University of Brasília, Brazil**
- Accomplished a series of courses (540 hours) on Pedagogy, including topics in Psychology, Didactics and two Teaching internships in public schools.

## AWARDS

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- Obtained an MSc scholarship from FAPESP (São Paulo Research Foundation).
- Obtained a 4-year PhD scholarship from the Brazilian Ministry of Education.
- Awarded a ‘Certificate of Recognition’ from the ABEP-UK Board of Directors 2016-17, thanks to my commitment, dedication, management and teamwork skills shown as a Director of that Association.
- Granted an Imperial College DoLS Travel Award for attending an international conference

## PUBLICATIONS

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**Brito AF**, Pinney JW. The evolution of protein domain repertoires: shedding light on the origins of herpesviruses. *Virus Evolution* 6 (1), veaa001, 2020.

Hadfield J\*, **Brito AF\***, Swetnam DM, Vogels CB, Tokarz RE, Andersen KG, Smith RC, Bedford T, Grubaugh ND. Twenty years of West Nile virus spread and evolution in the Americas visualized by Nextstrain. *PLoS pathogens* 15 (10), 2019.

**Brito AF**, Pinney JW. The structural evolution of host-pathogen protein interactions: an integrative approach. *bioRxiv* Preprint, 2019.

**Brito AF**, Pinney JW. Time-calibrated tree reconciliations reveal frequent losses, intrahost speciations, and host switches in the evolution of herpesviruses. *bioRxiv* Preprint, 2018.

**Brito AF**, Melo FL, Ardisson-Araújo DMP, Sihler W, Souza ML, Ribeiro BM. Genome-wide diversity in temporal and regional populations of the betabaculovirus *Erinnyis ello granulovirus* (ErelGV). *BMC genomics* 19 (1), 1-11, 2020

**Brito AF**, Pinney JW. Protein-Protein Interactions in Virus-Host Systems. *Frontiers in microbiology* 8, 1557, 2017.

**Brito AF**, Braconi CT, Weidmann M, Dilcher M, Alves JM, Gruber A, et al. The Pangenome of the *Anticarsia gemmatilis* Multiple Nucleopolyhedrovirus (AgMNPV). *Genome biology and evolution*. 8(1):94-108, 2015.

Villabona-Arenas CJ, **Brito AF**, de Andrade Zanotto PM. Genomic mosaicism in two strains of dengue virus type 3. *Infect Genet Evol.* 8 (1), 94-108, 2013.

Oliveira JVC, **Brito AF**, Braconi CT, Freire CCM, Iamarino A, Zanotto PMA. Modularity and evolutionary constraints in a baculovirus gene regulatory network. *BMC Syst Biol.* 7(1):87, 2013.

\* Co-first author

## WORK EXPERIENCE

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**Jun 2019 – Present**      **Communication Manager**, Yale Postdoctoral Association (YPA, [ypa.yale.edu](http://ypa.yale.edu)), United States

- Managed the Association's social media, newsletter and other communication platforms
- Coordinated a team of volunteer postdocs, members of the Communications Committee

**Aug 2016 – Jul 2017**      **Executive Director**, Association of Brazilian Students and Researchers in the United Kingdom (ABEP-UK, [abep.org.uk](http://abep.org.uk)), United Kingdom

- Represented this 37-year-old association in events at Embassies, Universities and other institutions
- Coordinated, analysed the data, and produced a report as result of a student satisfaction survey aimed at scholars funded abroad by the Brazilian Government
- Organized the 9<sup>th</sup> ABEP-UK Annual Conference gathering Brazilian researchers/students in Europe

**Aug 2016 – Jul 2017**      **Vice President**, Imperial College Latin American Society, United Kingdom

- Organized several events promoting the Latin American Culture (History, Dance, Culinary) to Students
- Managed the Society's social media and online communication with external institutions

**Jul 2016 – Oct 2018**      **Student Representative**, Imperial College Brazil Forum ([imperial.ac.uk/brazil-forum](http://imperial.ac.uk/brazil-forum)), United Kingdom

- Promoted seminars and networking events to Brazilian Scholars in London
- Designed the current logo and visual identity of the IC Brazil Forum

**Nov 2009 – Apr 2011**      **Undergraduate Researcher**, Brazilian Agricultural Research Corporation, Brazil

- Conducted experiments involving cell culture; *in vivo* and *in vitro* viral infections; and protein analysis

**May 2009 – Jun 2010**      **Co-founder & Marketing Director**, Sapiens Biological Consulting, Brazil

- Negotiated with Academics and the Head of Department for the establishment of this Junior Enterprise
- Designed the enterprise's logo and visual identity; and managed its website and social media

**Apr 2004 – Dec 2005**      **Informatics teacher**, Power School of Informatics, Brazil

- Instructed children, adults and older people to operate computers and software
- Designed course materials for teaching operating systems, Microsoft Office programs, CorelDraw and Photoshop

## CONFERENCES

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### Selected poster presentations

- Presented a poster at the 12<sup>th</sup> International Conference of the Brazilian Association of Bioinformatics and Computational Biology (AB3C). November 2016, Belo Horizonte, Brazil
- Presented a poster at the 12<sup>th</sup> Brazilian Symposium of Biological Control. July 2011, São Paulo, Brazil
- Presented a poster at the 62<sup>th</sup> Annual Conference of the Brazilian Society for the Advancement of Science (SBPC). July 2010, Natal, Brazil.

### Selected Oral presentations

- Gave a talk at the annual meeting of the Society for Molecular Biology and Evolution. July 2018, Yokohama, Japan.
- Gave a talk at the EMBO Workshop, Integrating Systems Biology: From Networks to Mechanisms to Models. April 2018, Heidelberg, Germany.
- Gave a talk at the 28<sup>th</sup> Annual Workshop on Mathematical and Statistical Aspects of Molecular Biology (MASAMB). March 2018, St Andrews, Scotland.
- Gave a talk at the EMBO Practical Course 'Integrative Modelling of Biomolecular Interactions'. July 2016, Barcelona, Spain
- Gave a talk at the 8<sup>th</sup> Annual Conference of the Association of Brazilian Postgraduate Students and Researchers in the United Kingdom (ABEP-UK). May 2016, London, United Kingdom

### Workshop

- Conducted a two-day Workshop called 'Graphic Design Applied to Science Communication' at the 15<sup>th</sup> Biology Week of the University of Brasília. October 2016, Brasília, Brazil

## TECHINICAL SKILLS

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- Proficient at Computer Programming: Python, R, Perl and Bash
- Experience using High Performance Computing (HPC) platforms.
- Advanced experience in Graphic Design (CorelDraw; Illustrator; Circos; iTOL)
- Experience in Web Design (HTML, WordPress, GitHub Pages)
- Language proficiency: Portuguese (Native speaker); English; and Spanish

## SOCIETY MEMBERSHIPS

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2019 – Present	National Postdoctoral Association, United States
2019 – Present	Yale Postdoctoral Association, United States
2018 – Present	Society for Molecular Biology and Evolution (SMBE), International
2018 – Present	Iberoamerican Society for Bioinformatics (SolBio), International
2017 – Present	Brazilian Society for the Advancement of Science (SBPC), Brazil
2017 – Present	Imperial College Brazil Forum, United Kingdom
2015 – Present	Association of Brazilian Students and Researchers in the United Kingdom (ABEP-UK), United Kingdom

## INTERESTS

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- Passionate about Latin American partner dancing, former member of the Imperial College Dance Society
- Enthusiastic about History, Anthropology, and Social Sciences in general
- Wikipedia Editor since 2010, improving articles quality and providing them with illustrations

**References available on request.**