

# Ana Caroline Colombo

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## PROFESSIONAL EXPERIENCE

- 01/2022–06/2022 **Programme Intern**  
*In2scienceUK - Remote, UK.*
- Assisted with student and volunteer recruitment
  - Helped with online information session about In2science and In2research programmes
  - Sourced, organised and updated contacts
  - Wrote a newsletter for volunteers
  - Assisted with budgeting for an in-person event
  - Evaluated previous programme content
- 06/2019–08/2019 **Arboretum Intern**  
*Lyon Arboretum - Honolulu, HI, USA.*
- Developed a field-trip material for 3rd grade about plant adaptations
  - Helped with k-12 summer camp
  - Guided tours through the arboretum
  - Participated in outreach at public events
  - Learned and assisted with: a) plant propagation techniques in the Greenhouse and the Micropropagation Lab as a conservation project/effort, b) identification of plants, c) maintenance of gardens and trails.
- 03/2019–06/2019 **Provider Credentialing Assistant**  
*HMAA/HWVG - Honolulu, HI, USA.*
- Reached out to providers for credentialing in the health insurance company system
  - Organized data and files.
- 08/2016–12/2017 **Research Support Specialist**  
*Stony Brook University, Stony Brook, NY, USA.*
- Managed projects independently
  - Established external collaborations
  - Processed and analyzed data
  - Authored two published scientific papers
  - Presented in conferences
  - Conducted research in biomedical topics and performed laboratory experiments.

## EDUCATION

- 2018 **PhD in Biological Chemistry**, Federal University of Rio de Janeiro (UFRJ), Brazil.
- 2014 **MSc in Psychobiology**, University of São Paulo (USP), Brazil.
- 2011 **BSc in Biology**, State University of São Paulo (UNESP), Brazil.
- 2010 **Licentiate degree in Biology**, State University of São Paulo (UNESP), Brazil.  
*Undergraduate level degree for teaching in primary and secondary education.*

## CONTINUING EDUCATION

- 2021 (present) **Write What's Next**  
Online - Writing on the Wall, UK.
- 2021 (3 months) **Write2Work**  
Online - Writing on the Wall, UK.
- 2021(3 months) **Creative Writing Course**  
Online - Blackburne House, UK.
- 2021 (present) **The Complete JavaScript Course 2021: From Zero to Expert**  
Online - Udemy, by Jonas Schmedtman.

- 2021 (60h) **Wanderlust Child: Nature Study**  
Online - Hygge in the Early Years, UK.
- 2021 (1h) **How to ... support schools with plant biology webinar**  
Online - STEM Ambassador, UK.
- 2020 **Inspiring Young People in STEM: Communication Skills for STEM Ambassadors**  
Online - Future Learn, UK.
- 2019 (1 month) **101 Web Development**  
DevLeague - Honolulu, HI, USA.
- 2019 (1h) **Programming Foundations: Software Testing/QA**  
Online - LinkedIn Learning.
- 2019 (1h30) **Learning Design for Sustainability**  
Online - LinkedIn Learning.
- 2019 (2h10) **The Top 10 Project Management Mistakes—and How to Avoid Them**  
Online - LinkedIn Learning.
- 2019 (1h55) **Comparing Agile versus Waterfall Project Management**  
Online - LinkedIn Learning.
- 2018 (24h) **Starting a Nonprofit**  
Online - Gale Courses, USA.

## TEACHING INTERNSHIPS

- 10/2018–03/2019 **Assistant Teacher** – Botany for kindergarten to 4th Grade  
*Education Department at Lyon Arboretum, Honolulu, USA.*
  - Assisted and taught field trips and indoor classes
  - Organized and managed the classrooms.
- 2015 (10 classes) **Assistant Teacher** – Undergraduate Biochemistry  
*Federal University of Rio de Janeiro, Brazil.*
  - Developed guided practice worksheets
  - Created and implemented formative assessment
  - Prepared and presented theoretical classes
  - Designed and applied final exams.
- 2015 (10 classes) **Group Supervisor** – Graduate Immune-neuro-endocrine System  
*Federal University of Rio de Janeiro, Brazil.*
  - Guided and helped a group of seven students to prepare and teach theoretical and creative classes.
- 03/2010–12/2010 **Assistant Teacher** – Biology for High School students  
*State School Professor Francisco Guedelha, Botucatu, Brazil.*
  - Helped to develop and organize the first science fair of the school
  - Taught theoretical and practical biology classes
  - Participated in group meetings
  - Helped to design and apply surveys to assess student's goals.
- 2007 (9 classes) **Volunteer Teacher** – Literature for a pre-university preparatory course  
*State University of São Paulo, Brazil.*
  - Prepared and taught classes.

## VOLUNTEERING AND OUTREACH

- 2020–present **Demonstrator Of Really Entertaining Education**  
*Aquarium of the World Museum, Liverpool, UK.*
- Interacted with public and demonstrated rock pool live animals and preserved specimens
  - Oversaw animal welfare • Logged visitor figures.
- 2020–present **STEM Ambassador**  
*All about STEM, Liverpool, UK.*
- Engaged with online communication about career in science • Participated in online training.
- 2020–present **Specimens Transcriber**  
*Kew Gardens, DigiVol (Online).*
- Helped to digitise information of the Herbarium and Fungarium collections.
- 2020 **Invited speaker (Online)**  
*Public School EMEF Prof. José Toledo de Mendonça, Brazil.*
- Presented and discussed about career and cultural experiences in an online session for students of primary and secondary education • Motivated students and teachers with a different online approach.
- 10/2018–03/2019 **Assistant for Children’s Education Program**  
*Lyon Arboretum, Honolulu, USA.*
- Taught hour long, primary education level classes • Assisted students with difficult tasks
  - Prepared classroom resources.
- 08/2018–03/2019 **Gift Shop Clerk**  
*Lyon Arboretum, Honolulu, USA.*
- Greeted and helped visitors with general information • Operated the cash register • Organized the store.
- 2018 **Retail Helper for Goodwill Goes Glam event**  
*Goodwill, Honolulu, USA.*
- Helped customers and organized products.
- 2017 **Invited speaker**  
*Nassakeag Elementary School, Setauket, USA.*
- Created and presented a class about Brazil.
- 2009 **Research Interviewer**  
*State University of São Paulo, Brazil.*
- Collected patient information • Explained research goals and consent form • Established contact between clinic and research group.

## PLANNING AND COORDINATION

- 2020–2021 **Book club organiser**  
*LadyMums Book Club, Liverpool, UK.*
- Gathered and interacted with some Mums (and babies) in Liverpool to change experiences, and discuss topics not related to motherhood • Managed to maintain the book club during the pandemic through online meetings.
- 2020 **Reunion - 10 years of Graduation**  
*Online meeting.*
- Reached out to friends from University • Set up surveys and planned the meeting considering at least 5 time zones • Coordinated the online meeting.

04/2007–12/2010 **Accountant**

*Graduation Party Planning Committee, Brazil.*

- Surpassed the fundraising goal
- Trusted for the position by peers
- Helped to organize fundraising events
- Designed and sold products
- Participated in regular meetings and committee's decisions.

## RESEARCH EXPERIENCE

2010–2016 **Neuroscience, Behavior and Pharmacology**

- Small animals models (mouse, rat and fish)
- Behavioral tests to assess fear, anxiety, memory, and/or depression, such as: catalepsy, open field and contextual fear conditioning, ultrasonic vocalization recording, elevated plus-maze and fear potentiated startle, novel object recognition, tail suspension
- Local and systemic drug injection
- Stereotaxic surgery
- Perfusion
- Histology and tissue staining.

2014–2018 **Microbiology, Biochemistry and Immunology**

- Primary culture of rat astrocytes and neurons
- Cell line culture
- Hybridoma culture
- Immunocytochemistry and Immunohistochemistry
- Cultivation of pathogen yeast
- Media preparation
- Urease and melanin assay
- Fungi growth and pH tests
- Polysaccharide isolation and quantification
- Vesicle purification and quantification
- Lipid extraction and quantification
- Animal model (mouse, *Galleria mellonella*)
- Intranasal infection
- Gavage technique
- Systemic drug injection
- Dissection
- Histology and tissue staining
- Dot blot
- MTT assay
- Antibody biotinylation
- Enzyme-linked immunosorbent assay (ELISA) and Dubois colorimetric assay
- Scanning Electron Microscopy (SEM)
- Thin-layer chromatography (TLC)
- Western blot
- Southern blot
- Flow cytometry
- DNA purification
- Biobalistic DNA delivery method.

## SCHOLARSHIPS

2014–2018 National Council for Scientific and Technological Development (CNPq), Brazil. **PhD Research Scholarship.**

2012–2014 São Paulo Research Foundation (FAPESP), Brazil. **Masters Research Scholarship.**

2012 National Council for Scientific and Technological Development (CNPq), Brazil. **Masters Research Scholarship.** (3 months)

2010 Coordination for the Improvement of Higher Education Personnel (CAPES), Brazil. **Undergraduate Institutional Program of Teaching Initiation Scholarship.** (9 months)

2009 State University of São Paulo (UNESP, Botucatu), Brazil. **Undergraduate Academic Support and Outreach Scholarship.** (6 months)

## PUBLICATIONS

2019 **Colombo, AC**, Rella, A, Normile, T, Joffe, LS, Tavares, PM, Araújo, GRS, Frases, S, Orner, EP, Farnoud, AM, Fries, BC, Sheridan, B, Nimrichter, L, Rodrigues, ML, Del Poeta, M. *Cryptococcus neoformans* glucuronoxylomannan and sterylglucoside are required for host protection in an animal vaccination model. *mBio*, doi:[10.1128/mBio.02909-18](https://doi.org/10.1128/mBio.02909-18).

2019 Barroca, NCB, Guarda, MD, Silva, NT, **Colombo, AC**, Reimer, AE, Brandão, ML, De Oliveira, AR. Influence of aversive stimulation on haloperidol-induced catalepsy in rats. Accepted at *Behavioural Pharmacology*. doi:[10.1097/FBP.0000000000000462](https://doi.org/10.1097/FBP.0000000000000462).

- 2018 Rizzo, J, **Colombo, AC**, Zamith-Miranda, D, Silva, VKA, Allegood, JC, Casadevall, A, Del Poeta, M, Nosanchuk, JD, Kronstad, JW, Rodrigues, ML. The putative flippase Apt1 is required for intracellular membrane architecture and biosynthesis of polysaccharide and lipids in *Cryptococcus neoformans*. *BBA - Molecular Cell Research*, doi:[10.1016/j.bbamcr.2017.12.007](https://doi.org/10.1016/j.bbamcr.2017.12.007).
- 2015 Brandão, ML, De Oliveira, AR, Muthuraju, S, **Colombo, AC**, Saito, VM, Talbot, T. Dual role of dopamine D2-like receptors in the mediation of conditioned and unconditioned fear. *FEBS Letters*, doi:[10.1016/j.febslet.2015.02.036](https://doi.org/10.1016/j.febslet.2015.02.036).
- Colombo, AC**, Rodrigues, ML. Fungal colonization of the brain: anatomopathological aspects of neurological cryptococcosis. *Annals of the Brazilian Academy of Sciences*, doi:[10.1590/0001-3765201520140704](https://doi.org/10.1590/0001-3765201520140704).
- 2014 De Oliveira, AR, **Colombo, AC**, Muthuraju, S, Almada, RC, Brandão, ML. Dopamine D2-like receptors modulate unconditioned fear: Role of the inferior colliculus. *Plos One*, doi:[10.1371/journal.pone.0104228](https://doi.org/10.1371/journal.pone.0104228).
- 2013 **Colombo, AC**, De Oliveira, AR, Reimer, AE, Brandão, ML. Dopaminergic mechanisms underlying catalepsy, fear and anxiety: Do they interact?. *Behavioural Brain Research*, doi:[10.1016/j.bbr.2013.10.002](https://doi.org/10.1016/j.bbr.2013.10.002).

## ACADEMIC SERVICE & AFFILIATIONS

- 2018–2020 Ad hoc referee of undergraduate scientific projects  
Psychology  
Federal University of São Carlos, Brazil.
- 2015 Ad hoc referee of undergraduate scientific posters  
Microbiology  
Federal University of Rio de Janeiro, Brazil.
- 2009 Organizing committee of the XIII Biology Week  
State University of São Paulo, Brazil.

## ADDITIONAL INFORMATION

• Bilingual (English and Portuguese) • Microsoft Office • Basic Python and Jupyter Notebook • JavaScript, HTML, CSS and L<sup>A</sup>T<sub>E</sub>X • GitHub • Basic Image Editing and Vector Graphics Software • Data Processing and Statistical Analysis