

# JALAL AL RAHBANI

## MASTERS RESEARCHER – PHYSIOLOGY, MCGILL UNIVERSITY

### CONTACT

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### SKILLS

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- Clinical Data Management
  - Data Integrity & Quality Assurance
  - Data Review & Query Resolution
  - Clinical Trial Documentation
  - Electronic Records Management
  - Team Collaboration

### LANGUAGES

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- **English** – Native
  - **Arabic** – Native
  - **French** – Professional Working Proficiency
  - **Spanish** – Limited Working Proficiency

### EDUCATION & PROFESSIONAL EXPERIENCE

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**Master's Degree**  
(01/2021 – 08/2025)  
Department of Physiology  
McGill University, Montreal, QC

### PROFESSIONAL SUMMARY

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Detail-oriented and highly organized scientist with 6+ years of hands-on experience in clinical and research data management, documentation, and electronic record keeping. At the Institut Universitaire de Gériatrie de Montréal (IUGM), I trained and supported clinical study participants, coordinated cohort testing logistics, and maintained the integrity and validity of collected data throughout trial phases. Holder of two master's degrees in life sciences, with advanced skills in project management, data review, and digital workflow optimization. Experienced in database updates, data entry, and query resolution, ensuring precise and reliable clinical datasets in compliance with regulatory standards and sponsor guidelines. Proven communicator and collaborator, adept at supporting team objectives, continuous process improvement, and contributing to successful project outcomes in fast-paced, remote/hybrid environments.

### TECHNICAL PROFICIENCY

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- **Documentation & Data Tools:** Python, Excel, GraphPad, Power BI, JMP
  - **Image/Data Platforms:** Fiji (ImageJ), CellProfiler, QuPath, Imaris, custom built tools.
  - **Programming & Pipelines:** Python (NumPy, Pandas, scikit-images), SQL
  - **Medical/Research Tools:** Scaffold, Cytoscape, STRING, Bioinformatics tools
  - **System Environments:** High-performance computing, Cloud, Remote Desktop
  - **EDC platforms/ Clinical Data Management systems** familiar and willing to learn more.

### AWARDS & ACCOMPLISHMENTS

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- **Third Place Winner – Oral Presentation – McGill Physiology Graduate Research Day, 2024**
  - **Charles River Laboratories Fellowship – Awarded for academic excellence, 2021**
  - **First Place Winner – Poster Presentation – McGill Anatomy & Cell Biology Departmental Retreat, 2018**

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- Accurately recorded experimental workflows and annotated large microscopy datasets for Machine Learning analysis during live cell imaging sessions
  - Managed digital imaging records with high precision, contributing to reproducible research and quality-controlled data archives
  - Documented observations in real time using Fiji and Imaris, paralleling EHR-style entry in fast-paced lab settings
  - Collaborated with cross-functional teams and maintained confidentiality of sensitive biological data
  - Mentored 3 undergraduates in documentation workflows, sample preparation, and structured data recording and analysis
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<b>Teaching Assistant</b> (01/2023 – 05/2023 & 01/2024 – 05/2024) Department of Physiology McGill University, Montreal, QC	<ul style="list-style-type: none"> <li>• Guided students through microscope usage, image recording, and digital documentation workflows using Fiji and Zeiss Zen software</li> <li>• Explained image data handling principles, including best practices for data annotation, naming conventions, and archiving</li> <li>• Provided structured feedback on assignments involving technical reporting and scientific image analysis.</li> </ul>
<b>Lab Assistant</b> (01/2021 – 12/2023) Advanced BiImaging Facility (ABIF) McGill University, Montreal, QC	<ul style="list-style-type: none"> <li>• Supported users in microscopy use and analysis while logging microscopy data in real-time during image acquisition sessions</li> <li>• Maintained structured digital records for high-resolution microscopes and samples employed in training sessions</li> <li>• Trained researchers to document imaging and analysis protocols accurately and securely for future use and publication methods disclosure</li> </ul>
<b>Research Assistant</b> (08/2020 – 12/2020) Department of Physiology McGill University, Montreal, QC	<ul style="list-style-type: none"> <li>• Created detailed documentation of research experiments, protocols, timelines, and results for upcoming project</li> <li>• Handled biological and sample metadata in digital logs, ensuring traceability and record completeness for upcoming project</li> </ul>
<b>Master's Degree</b> (01/2018 – 01/2020) Department of Anatomy & Cell Biology Dr. Nathalie Lamarche's Lab McGill University Health Centre (MUHC) Cancer Research Program Montreal, QC	<ul style="list-style-type: none"> <li>• Designed and recorded results from proteomics and molecular biology experiments with strict attention to documentation standards</li> <li>• Co-authored peer-review publication based on detailed lab records and reproducibility</li> <li>• Supervised 1 graduate student in lab protocol documentation and experimental tracking</li> </ul>
<b>Research Assistant</b> (01/2016 – 01/2017) Dr Louis Bherer's Neuropsychology Lab Institut Universitaire de Gériatrie de Montréal (IUGM) Montreal, QC	<ul style="list-style-type: none"> <li>• Coordinated participant training and onboarding for clinical cohort studies involving cognitive stimulation protocols in older adults.</li> <li>• Collected, entered, and managed participant data with a focus on data integrity, accuracy, and adherence to research protocols.</li> <li>• Maintained and updated digital logs, conducted chart reviews, and ensured all data were compliant with confidentiality and regulatory standards.</li> <li>• Assisted in troubleshooting application tools and devices used for cognitive testing, supporting participants as they complete digital assessments.</li> <li>• Contributed to weekly data reporting and supported trial documentation for study progress and regulatory submissions.</li> <li>• Ensured secure handling and storage of patient-associated data and clinical research files in line with data privacy standards.</li> </ul>
<b>Insurance Sales Representative</b> (01/2012 – 08/2013) Almir Consulting Beirut, Lebanon	<ul style="list-style-type: none"> <li>• Sold personal and commercial insurance policies directly to individuals and small businesses, managing all paperwork and compliance documentation.</li> <li>• Assessed client needs, explained policy options, and ensured accurate entry of sensitive personal and financial data for underwriting.</li> <li>• Maintained organized digital and paper records of all sales activities and client interactions in accordance with regulatory standards.</li> <li>• Built strong customer relationships and consistently met or exceeded monthly sales targets.</li> </ul>

## PUBLICATIONS

- **Inferring cellular contractile forces and work using deep morphology traction microscopy** *Biophysical Journal*, 2024. doi 10.1016/j.bpj.2024.07.020

- **"CdGAP is a talin-binding protein and a target of TGF- $\beta$  signaling that promotes HER2-positive breast cancer growth and metastasis"**  
*Cell Reports*, 2023. doi.org/10.1016/j.celrep.2023.112936
- **"Polarity and mixed-mode oscillations may underlie different patterns of cellular migration"** *Scientific Reports*, 2023. doi: 10.1038/s41598-023-31042-8.
- **"Metabolic networks of the human gut microbiota"** *Microbiology Society Journal*, 2020. doi: 10.1099/mic.0.000853

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## **VOLUNTEERING**

- **Volunteering at the "General Jewish Hospital"**, at the Histology and Molecular diagnostic labs working on digitization and data entry for patient history data. (2014-2016) Jewish General Hospital: <http://www.jgh.ca/>
  - **Volunteering at Past Federal Deputy Maria Mourani's office in Ahuntsic-Cartierville for over two years spanning 2013-2015.** Call center agent and communication coordinator over social media.
  - **Volunteering at "Beytuna", elderly care place in Dhour Shweir, Lebanon. (2011-2012)**  
Their Facebook Page: Medical and Social Center (Baytna)
  - **Volunteering at "Message de Paix" with adult handicapped people in Bickfaya, Lebanon (2010-2011)**  
<http://www.handiplanet-echanges.info/organisations/message-de-paix-fr>
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**REFERENCES AVAILABLE UPON REQUEST**