

Christian M. Denis
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I'm currently a physics (biophysics) PhD student at Université de Montréal. My main projects are oriented in immunology and developmental biology. I'm also involved in various artistic projects, mainly as a musician/composer.

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| EDUCATION | Université de Montréal , Montréal <i>Physics</i> (PhD) May 2028 | Location: Montréal, Canada CUM GPA: 4.30/4.30 |
| | Université de Montréal , Montréal <i>Physics</i> (M. Sc.) – Dean's Honor List May 2025 | CUM GPA: 4.30/4.30 |
| | McGill University , Montréal <i>Honours Physics</i> (B. Sc.) December 2022 | CUM GPA: 3.94/4.00 |
| | John Abbott College , Ste-Anne de Bellevue <i>Arts and Sciences</i> (DEC) May 2019 | R-Score: 33.939 |
| SKILLS | Languages (spoken and written): French, English Computer Skills: Solid programming skills in Julia, Python and Mathematica. Knowledgeable with LaTeX, JavaScript, HTML, CSS and Matlab. Competent with programs such as the Office Suite from Microsoft, GIMP, Pages (Apple) and Overleaf. Solid audio-editing and producing skills using Ableton and Reason. Data Analysis: Usage of Python, Julia and other statistical tools to analyze data Licenses: <u>Driver's Licence</u> – Class 5 Permit (Canada), <u>Scuba Diving License</u> – “Open Water Diver” (PADI), <u>Ski Instructor License</u> – CSIA Level 1 Certification (Canada) | |
| EXPERIENCE | EMBL (Heidelberg, Germany): Trainee Internship in Alexander Aulehla's lab (Developmental biology). | Summer 2024 |
| | EMBL (Heidelberg, Germany): Trainee Internship in Alexander Aulehla's lab (Developmental biology). | Summer 2023 |
| | Université de Montréal: Research Assistant Research assistant in Paul François' lab (Biophysics). | Winter 2023 |
| | McGill Physics: Undergraduate Summer Intern Research assistant in Paul François' lab (Biophysics). | Summer 2022 |
| | McGill Physics: Undergraduate Summer Intern Research assistant in Paul François' lab (Biophysics). | Summer 2021 |
| | Phytronix Technologies: Research Assistant Research assistant at Phytronix technologies in mass-spectrometry. | Summer 2020 |
| | Math, Physics and Chemistry Tutor | 2018 - Now |
| | Summer Jobs Kruger Packaging: student factory worker (2019), Norsk Hydro: student factory worker (2018), McDonald's: kitchen employee (2017), House maintenance work (2016) | 2016 - 2019 |

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| PUBLICATIONS | Dynamical model and geometric insights in the discontinuity theory of immunity Denis CM, Mochulska V, Dagher M, Verbavatz V, Bourassa FXP, Altan-Bonnet G, François P. bioRxiv (preprint). 2025. |
| | Unclocklike Oscillators with Frequency Memory for the Entrainment of Biological Clocks Denis CM, François P. PRX Life 2, 043008. 2024. |
| | Arnold tongue entrainment reveals dynamical principles of the embryonic segmentation clock Layague Sanchez PG, Mochulska V, Denis CM, Mönke G, Tomita T, Tsuchida-Straeten N, Petersen Y, Sonnen KF, François P, Aulehla A. eLife 11:e79575. 2022. |
| AWARDS AND GRANTS | Dean's Honor List (UdeM) 2025 Dean's honor list for Master's degree at Université de Montréal |
| | 3rd CIB Symposium: Best Oral Presentation Award 2025 500 \$ – Center for Innovative Biomedicine (CIB) Scientific Symposium, Université de Montréal |
| | FRQNT Graduate Scholarship 2025 100 000 \$ — Québec Provincial Graduate Scholarship — PhD program. |
| | FRQNT Graduate Scholarship 2024 20 000 \$ — Québec Provincial Graduate Scholarship — Master's program. |
| | NSERC Graduate Scholarship 2024 27 000 \$ — Canada Graduate Scholarship — Master's program. |
| | BLUE Fellowship 2024 3 000 \$ — McGill University, Building 21. |
| | McGill McGameJam 2023 2nd Position. I mainly worked on audio production for our video game during the event. Access the game here . |
| | NSERC USRA Research Award 2022 6 000 \$ grant for undergraduate summer research. |
| | SURA - Dixie Park Science Undergraduate Research Award 2021 4 000 \$ grant from donors, for undergraduate summer research. |
| | Summer Internship Grant From BioTalent Canada 2020 7 000 \$ grant for undergraduate summer research. |
| | 2nd Position at John Abbott College at CAP exams 2019 |
| | Certificat du Mérite en histoire pour résultat scolaire exceptionnel 2017 |
| | Prix Coup de cœur francophone (song lyrics) 2017 |
| | Concours Soliste de Victoriaville (Provincial Music Contest) 2013-2015 Silver - Clarinet (2013), Bronze - Clarinet (2015) |

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| ACADEMIC INVOLVEMENT | Organization of the 2024 BSC Meeting | 2024 |
| | I participated in the organization comitee of the 2024 Biophysical Society of Canada (BSC) Meeting. I also co-chaired the “trainee symposium” part of the event. | |
| | Organization of “The Late-Night Blackboard” events | 2023 |
| | I organized a series of evenings with “chalkboard-talks” presentations explaining a topic in any field to a general audience. Held at <u>Building 21</u> (McGill). | |
| | VP Brewing – McGill Brewing Club | 2022 |
| | TVM Admin Position – Music Composer | 2022 |
| | Executive Member of TVM (Student Television at McGill) | 2021 - 2022 |
| | VP - John Abbott College Space Club | August 2018 - May 2019 |
| SOCIAL INVOLVEMENT AND VOLUNTEERING | Barista Volunteer (“La Planck”, Université de Montréal) | 2025 – now |
| | Part-time volunteer at the student-ran physics coffee shop “La Planck”. | |
| | Hospital Volunteer (Jewish General Hospital, Montreal) | 2025 – now |
| | Part-time volunteer at the ER. | |
| | Organization of “<u>agora_jeanne_mance</u>” events | 2025 – now |
| | I organized weekly inclusive and accessible “agora” events in Jeanne-Mance Park, an effort to combat the loneliness epidemic. A mission statement can be found <u>here</u> . | |
| | Organization of Crater Sketching Workshops | 2019 |
| | Organization of musical performances for the Salvation Army | dec. 2014 |
| DISCOGRAPHY | “Continental” (as Chris Mauden) | 2025 |
| | Music album, composed, recorded, produced, mixed, mastered and published. <u>Link</u> . | |
| | “Boxberg” (as Chris Mauden) | 2024 |
| | Music EP, composed, recorded, produced, mixed, mastered and published. <u>Link</u> . | |
| | “Should’ve Stayed Home Tonight” (as Chris Mauden) | 2024 |
| | Music EP, composed, recorded, produced, mixed, mastered and published. <u>Link</u> . | |
| | “Lab Day 23 (feat. Jona Rada & Ali Seleit)” (as Chris Mauden) | 2023 |
| | Music single, composed, recorded, produced, mixed, mastered and published. <u>Link</u> . | |
| | “LMP1” (as Chris Mauden) | 2022 |
| | Music single, composed, recorded, produced, mixed, mastered and published. <u>Link</u> . | |
| | “The Sunset Experiment” (as Chris Mauden) | 2020 |
| | Music EP, composed, recorded, produced, mixed, mastered and published. <u>Link</u> . | |
| | “T.H.E.C.O.R.O.N.A” (as Chris Mauden) | 2020 |
| | Music EP, composed, recorded, produced, mixed, mastered and published. <u>Link</u> . | |
| | “Differential” (as Chris Mauden) | 2019 |
| | Music Album, composed, recorded, produced, mixed, mastered and published. <u>Link</u> . | |
| | “Signals” (as Chris Mauden) | 2018 |
| | Music single, composed, recorded, produced, mixed, and mastered. Made using samples of the cosmic microwave background noise. <u>Link</u> . | |

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| VIDEOGRAPHY | “Maman, j’étais pirate” (Short) Original Music Composer. Link to video. | 2025 |
| | “Building 21: McGill’s Interdisciplinary Idea Lab” (Promo video) Original Music Composer. Link to video. | 2024 |
| | “I Worry About My Teeth” (Short) Original Music Composer, Sound Recordist | 2024 |
| | “Posing in Bondage” (Short) Original Music Composer Awarded “Best Student Short” at the 2023 Cannes Short Film Festival. | 2023 |
| | “Reminiscence Of The Fading Memories” (Short) Original Music Composer. Link to video. | 2023 |
| | “Just A Kid” (Short Documentary) Original Music Composer. Link to NFB page. | 2022 |
| | “Love Triangle” (TVM Short) Original Music Composer | 2022 |
| | “A Quirky Indie” (TVM Short) Original Music Composer, Cameraman, Actor | 2021 |
| | “Bloom” (Short) Original Music Composer | 2020 |
| | “Philippe” (Short Documentary) Original Music Composer. Link to video. | 2018 |
| | “ShadowChasers 2017: The Great American Total Solar Eclipse” Original Music Composer | 2018 |
| MULTIMEDIA | “Music from modelling the segmentation clock” (Projection) Procedural projections reactive to music. Music samples from numerical simulations of a model for the segmentation clock . Made for a BLUE fellowship at B21 (McGill). | 2024 |
| | “Raccoon raider & the temple of thrash” (Video Game) Original Music Composer and sound designer. Video game project done at the McGame-Jam 2023 (McGill University). Link to project. | 2023 |
| | “Scène de la mer” (VR) Original Music Composer. VR project done at B21 (McGill University). | 2022 |
| ACTIVITIES AND INTERESTS | NAS management Media digitization and archiving/organization (HDD, VHS, DVD, Blurays, etc.) | 2025 – now |
| | River Surfing | 2025 – now |
| | Home-fermentation (Beer, Kombucha, Wine, Yogurt, etc.) | 2022 – now |
| | Coding projects Find some examples on this page of my personal website. | 2021 – now |
| | Music recording, composition and production | 2015 – now |
| | Travelling 50+ countries visited (list). A year-long trip around the world (2013-2014). | |