

Christian M. Denis
Website: cmdenis.com
Work: christian.denis@umontreal.ca

Location: Montréal, Canada

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.

EDUCATION	Université de Montréal, Montréal <i>Physics (PhD) – May 2028</i>	CUM GPA: 4.30/4.30
	Université de Montréal, Montréal <i>Physics (M. Sc.) – Dean's Honor List – May 2025</i>	CUM GPA: 4.30/4.30
	McGill University, Montréal <i>Honours Physics (B. Sc.) – December 2022</i>	CUM GPA: 3.94/4.00
	John Abbott College, Ste-Anne de Bellevue <i>Arts and Sciences (DEC) – May 2019</i>	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 Logic Pro, Ableton and Reason. Data Analysis: Usage of Python, Julia and other statistical tools to analyze data Licenses: <u>Driver's Licence – Class 5 Permit (Canada)</u> , <u>Scuba Diving License – “Open Water Diver” (PADI)</u> , <u>Ski Instructor License – CSIA Level 1 Certification (Canada)</u>	
EXPERIENCE	Teaching	2018 - Now
	Teaching Assistant at UdeM (Fall 2025), high-school and CEGEP STEM tutor	
	EMBL (Heidelberg, Germany): Trainee	Summer 2024
	Internship in Alexander Aulehla's lab (Developmental biology).	
	EMBL (Heidelberg, Germany): Trainee	Summer 2023
	Internship in Alexander Aulehla's lab (Developmental biology).	
	Université de Montréal: Research Assistant	Winter 2023
	Research assistant in Paul François' lab (Biophysics).	
	McGill Physics: Undergraduate Summer Intern	Summer 2022
	Research assistant in Paul François' lab (Biophysics).	
	McGill Physics: Undergraduate Summer Intern	Summer 2021
	Research assistant in Paul François' lab (Biophysics).	
	Phytronix Technologies: Research Assistant	Summer 2020
	Research assistant at Phytronix technologies in mass-spectrometry.	
	Summer Jobs	2016 - 2019
	Kruger Packaging: student factory worker (2019), Norsk Hydro: student factory worker (2018), McDonald's: kitchen employee (2017), House maintenance work (2016)	

PUBLICATIONS	<p>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.</p> <p>Unclocklike Oscillators with Frequency Memory for the Entrainment of Biological Clocks Denis CM, François P. PRX Life 2, 043008. 2024.</p> <p>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.</p>
AWARDS AND GRANTS	<p>Bourse de mérite des ESP (UdeM) 2026 5 000 \$ – Grant for academic excellence, UdeM’s graduate and post-graduate office</p> <p>Dean’s Honor List (UdeM) 2025 Dean’s honor list for Master’s degree at Université de Montréal</p> <p>3rd CIB Symposium: Best Oral Presentation Award 2025 500 \$ – Center for Innovative Biomedicine (CIB) Scientific Symposium, Université de Montréal</p> <p>FRQNT Graduate Scholarship 2025 100 000 \$ — Québec Provincial Graduate Scholarship — PhD program.</p> <p>FRQNT Graduate Scholarship 2024 20 000 \$ — Québec Provincial Graduate Scholarship — Master’s program.</p> <p>NSERC Graduate Scholarship 2024 27 000 \$ — Canada Graduate Scholarship — Master’s program.</p> <p>BLUE Fellowship 2024 3 000 \$ — McGill University, Building 21.</p> <p>McGill McGameJam 2023 2nd Position. I mainly worked on audio production for our video game during the event. Access the game here.</p> <p>NSERC USRA Research Award 2022 6 000 \$ grant for undergraduate summer research.</p> <p>SURA - Dixie Park Science Undergraduate Research Award 2021 4 000 \$ grant from donors, for undergraduate summer research.</p> <p>Summer Internship Grant From BioTalent Canada 2020 7 000 \$ grant for undergraduate summer research.</p> <p>2nd Position at John Abbott College at CAP exams 2019</p> <p>Certificat du Mérite en histoire pour résultat scolaire exceptionnel 2017</p> <p>Prix Coup de cœur francophone (song lyrics) 2017</p> <p>Concours Soliste de Victoriaville (Provincial Music Contest) 2013-2015 Silver - Clarinet (2013), Bronze - Clarinet (2015)</p>

ACADEMIC INVOLVEMENT	Organization of the 2024 BSC Meeting	2024
	I participated in the organization committee 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 “@agora_jeanne_mance” 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> .		

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