

# TALON CHANDLER

## CURRICULUM VITÆ

### Biographical Information

Born: June 24, 1993 in Calgary, Alberta  
Citizenship: Canada  
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Woods Hole, MA  
02543  
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### Education

- [2] **(In Progress) Ph.D. Medical Physics** 2015–2020  
Thesis: “Measuring Molecular Orientations With Polarized Light Microscopy”  
Advisor: Dr. Patrick La Rivière  
University of Chicago
- [1] **B.A.Sc. Engineering Physics** 2010–2015  
with Electrical Engineering Minor, with Distinction  
GPA: 3.93/4.00  
University of British Columbia
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### Publications

- [3] **Chandler, T.**, Mehta, S., Shroff, H., Oldenbourg, R., La Rivière, P. J., “Single-fluorophore orientation determination with multiview polarized illumination: Modeling and microscope design,” *Optics Express*, vol. 25, no. 25, 2017.
- [2] Day, K. J., La Rivière, P. J., **Chandler, T.**, Bindokas, V. P., Ferrier, N. J., Glick, B. S., “Improved deconvolution of very weak confocal signals,” *F1000Research*, vol. 6, no. 787, 2017. DOI: 10.12688/f1000research.11773.1.
- [1] Shechter, S. M., **Chandler, T.**, Skandari, M., Zalunardo, N., “Cost-effectiveness analysis of vascular access referral policies in CKD,” *American Journal of Kidney Diseases*, vol. 70, no. 3, pp. 368–376, 2017. DOI: 10.1053/j.ajkd.2017.04.020.
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### Presentations

- [4] “Mapping Molecular Order In Living Organisms Using Polarized Light Microscopy” 10/2017  
with Rudolf Oldenbourg, University of California, Berkeley
- [3] “Mapping Molecular Order In Living Organisms Using Polarized Light Microscopy” 10/2017  
with Rudolf Oldenbourg, SCIEN Colloquium, Stanford University
- [2] “Evaluating Gambles Using Dynamics” 04/2017  
Graduate Program on Medical Physics Journal Club  
**Carl J. Vyborny Award for Outstanding Journal Club Presentation**

- [1] “Digital Holography For Radiation Dosimetry” 04/2016  
Graduate Program on Medical Physics Journal Club
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## Research History

- [5] **La Rivière Lab**, University of Chicago 05/2016–  
Advisors: Dr. Patrick La Rivière & Dr. Rudolph Oldenbourg  
Topics: Polarized light microscopy, 3D reconstruction
- [4] **Kao Lab**, University of Chicago 01/2016–04/2016  
Advisor: Dr. Chien-Min Kao  
Topics: PET detectors, statistical signal processing
- [3] **MRI Research Centre**, University of British Columbia 04/2014–09/2015  
Advisors: Dr. Alex MacKay & Dr. Carl Michal  
Topics: NMR, MRI, inhomogeneous magnetization transfer
- [2] **Haas Lab**, University of British Columbia 01/2014–04/2014  
Advisor: Dr. Kelly Sakaki  
Topics: Single cell electroporation, two-photon microscopy
- [1] **Centre For Operations Excellence**, University of British Columbia 04/2013–09/2015  
Advisor: Dr. Steven Shechter  
Topics: Health care optimization, Monte Carlo simulation
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## Employment History

- [2] **Kardium Inc.**, Burnaby, BC 09/2013–12/2013  
Junior Engineer  
Topics: Cardiac ablation, tissue conductivity, image analysis
- [1] **SRK Consulting Inc.**, Vancouver, BC 01/2012–04/2012  
Junior Engineer  
Topics: Waste water management, Monte Carlo simulation
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## Teaching

- [2] **Medical Imaging 1**, University of Chicago 2017  
Teaching Assistant  
Topics: X-ray imaging, MRI, image restoration  
Rating: 5.0/5.0 from 5 students
- [1] **Mathematics For Medical Physics**, University of Chicago 2016  
Teaching Assistant  
Topics: Linear systems theory, stochastic processes, image reconstruction  
Rating: 4.8/5.0 from 5 students

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## Awards

[8]	University of Chicago Biological Sciences Division Graduate Fellowship	\$30k	2016
[7]	Eastern Irrigation District Graduate Scholarship	\$2k	2014
[6]	NSERC Undergraduate Research Award	\$4k	2014
[5]	NSERC Industrial Undergraduate Research Award	\$4k	2013
[4]	Interpipeline Discovery Scholarship	\$2k	2011
[3]	UBC President's Entrance Scholarship	\$1.5k	2010
[2]	Alexander Rutherford Scholarship	\$2.5k	2010
[1]	Junior Citizen of the Year, City of Brooks	-	2010

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## Computing

<b>Top Language:</b>	Python
<b>Competent Languages:</b>	C, C++, Bash, MATLAB
<b>Familiar Languages:</b>	R, Mathematica, HTML/CSS
<b>Tools:</b>	GNU Emacs, L <sup>A</sup> T <sub>E</sub> X, git, OpenGL, ImageJ

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## Other Activities

<b>Ultramarathon running</b>	12 races $\geq$ 26.2 miles
<b>SCUBA diving</b>	15 open water dives, $\sim$ 600 minutes underwater
<b>Apiculture</b>	