

# Ben Colville

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- Doctoral student in Organic Chemistry at University College London, focusing on using organic chemistry to answer questions about prebiotic chemistry and the origins of life
  - Interested in complex systems and their problems. Driven to find solutions through evidence-based creativity

## Education

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2016–2020	<b>University College London</b> <i>Ph.D. Organic Chemistry</i> , Supervisor: Prof. Matthew Powner Thesis: <b>Studies of Nucleic Acids at the Origin of Life</b>
2012–2016	<b>University College London</b> <i>MSci. Chemistry, 1st Class Honours</i> Awards: <b>Charles Vernon Prize for Best Final Year Biological Chemist</b>

## Research Experience

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2016–2020	<b>University College London</b> <i>PhD Researcher</i> <ul style="list-style-type: none"><li>• Designed, planned and executed complex organic synthesis projects</li><li>• Discovered self-purifying photochemical synthesis of xeno nucleic acids</li><li>• Developed photochemistry methodology for assessing key properties of nucleic acids</li><li>• Analysed complex NMR spectra and carried out data analysis using Python</li><li>• Presented work at an international conference for Early Career Researchers (IOoLM 2018)</li></ul>
2015–2016	<b>University College London</b> <i>Master's Researcher</i> <ul style="list-style-type: none"><li>• Achieved highest mark of all biological chemistry students based on final-year project</li><li>• Carried out nucleic acid synthesis and photochemistry</li></ul>

## Skills

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LAB	Organic chemistry including: air sensitive techniques, photochemistry and purification, data analysis: NMR, Mass Spectrometry
PROGRAMMING	Python and data science libraries (Pandas, NumPy, Matplotlib), bash/shell, Git, SQL, Markup Languages including HTML/CSS, L <sup>A</sup> T <sub>E</sub> X and Markdown

## Teaching Experience

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2017–2020	<b>Teaching of Undergraduate Students</b> <i>Selected to tutor up to 15 1st year students covering the fundamentals of organic chemistry. Instructed practical laboratory skills, as well as safety, for 1st, 2nd and 3rd year students</i>
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2017–2018 | **Supervising of Master’s Students**  
*Mentoring, project planning and teaching of lab based skills and advising of report writing for master’s students in the Powner group*

## Invited Talks

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2018 | **“Chemical studies of Nucleic acids at the Origin of Life”**  
*International Origins of Life Meeting (IOoLM) for ECRs*

## Publications

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- Colville, B., Powner M. W., Potentially prebiotic self-purifying tetrose nucleic acid synthesis, *Manuscript in preparation*

## Leadership and Teamwork Experience

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2019– | **Team member of England Box Lacrosse Team**  
*Represented England at the World Indoor Lacrosse Championships (Langley, BC, Canada).*

2018–2019 | **Co-founder of London Raptors Lacrosse Club**  
*Co-founder of a new central London lacrosse club that met the need for high-level lacrosse in central London. Established an open and inclusive, community-focussed club with over 50 members within the first 2 years*

2016–2017 | **President of UCL Men’s Lacrosse Club**  
*Lead, concurrent with PhD, one of the highest performing clubs at UCL with over 75 members*