

CAROL GU '17

IIP 2015

Institute for Molecular Bioscience (IMB)

University of Queensland (UQ)

Brisbane, Australia

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- ▶ Attempted to develop new antifungal compounds by exploiting differences between human and fungal enzymes
- ▶ Used a structure-based approach based on hits from a previous screening campaign
- ▶ Conducted synthetic organic chemistry, characterization (LCMS, NMR, and mass spectrometry), and purification (HPLC)

WORK DESCRIPTION: DRUGS AGAINST HUMAN PATHOGENIC FUNGI



MY WORK PLACE:
FRONT ENTRANCE (LEFT); VIEW FROM BALCONY (RIGHT)

- ▶ I was independent in the lab after a couple weeks
 - ▶ I operated analytical instruments (i.e. LCMS, NMR, and HPLC)
- ▶ I learned a wide range of reaction conditions
- ▶ I synthesized many unique final products for screening

THE MOST REWARDING ASPECTS

- ▶ The final products I synthesized will be used in microbiological studies to screen for antifungal activity
- ▶ The data from those studies (positive or negative) will guide future studies and help the IMB develop the ultimate antifungal compound structures

MY WORK'S IMPACT ON THE ORGANIZATION

- ▶ My work affirmed my decision to concentrate in chemistry and my interest in drug discovery
- ▶ I hope to further study medicinal chemistry in my junior and senior independent work

MY WORK'S IMPACT ON ME

Several white lines of varying lengths and slopes are positioned in the bottom right corner of the slide, creating a modern, abstract graphic element.

- ▶ This was the first time I was abroad on my own! I enjoyed it immensely and hope to travel more
- ▶ I gained a set of problem solving skills in the lab
- ▶ I met and befriended many people at UQ

MY PERSONAL GROWTH



TRAVELS: BRISBANE CITY



TRAVELS: GOLD COAST AND SUNSHINE COAST



TRAVELS: SYDNEY AND CAIRNS