



Certificate of Achievement

Ramyani Mukherjee

has completed the following course:

THE SCIENCE OF MEDICINES
MONASH UNIVERSITY

This online course explored the science of key medicines used to manage heart disease, depression, diabetes, pain control and smoking cessation.

6 weeks, 3 hours per week



Ian Larson
Senior Lecturer
Monash University

 **MONASH**
University

The person named on this certificate has completed the activities in the attached transcript. For more information about Certificates of Achievement and the effort required to become eligible, visit futurelearn.com/proof-of-learning/certificate-of-achievement.

This learner has not verified their identity. The certificate and transcript do not imply the award of credit or the conferment of a qualification from Monash University.

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THE SCIENCE OF MEDICINES
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90%
AVERAGE TEST
SCORE

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STUDY REQUIREMENT

6 weeks, 3 hours per week

LEARNING OUTCOMES

- Describe the physiological impact of common medical conditions on the human body.
- Investigate the chemical structures of modern medicines.
- Explain how the chemical structures of medicines make them effective in treating specific medical conditions (pharmacology).
- Explore how the design, delivery and dosage of medicines influence their effectiveness (pharmaceutics).
- Discuss the human aspects of taking medicines, including side effects and addiction.

SYLLABUS

- The composition and roles of different members of a patient's healthcare team.
- An overview of how the human body works and the key systems within it.
- An overview of the fundamentals of chemistry: elements, bonds, molecular structures and intermolecular interaction.
- The importance of the chemical design of medicines to their treatment of specific conditions (pharmacology).
- The importance of the design, delivery and dosage of medicines to their effectiveness (pharmaceutics).
- Diabetes and how hypoglycaemics work to treat it.

- Heart disease and how atorvastatin works to treat it.
- Pain and how morphine works to treat it.
- Smoking and how treatments for nicotine addiction work.
- Depression and how antidepressants work to treat it.