

# Teaching Stage 5 Science: Isotopes, radioactivity and nuclear medicines

Secondary Science Teacher Professional Development Course Program

Part 1: 4:00 – 5:30pm

Time	Title	Presenter/s
4:00	Official welcome and introductions	<i>Dr Bridget Murphy, Secondary Education Manager, ANSTO</i>
4:00	Presentation 1: Current uses of nuclear medicines: Properties and uses	<i>Robin Davis, Industrial Chemist, ANSTO</i>
4:25	Presentation 2: Emerging technologies in nuclear medicine and their projected impacts on society	<i>Prof. Michael Hofman, Nuclear Medicine Physician, Peter MacCallum Cancer Centre</i>
4:50	Presentation 3: Benefits come with responsibilities: Managing nuclear waste safely	<i>Pamela Naidoo-Ameglio, Executive Leader of Nuclear Operations, ANSTO</i>
5: 15	Presentation 4: Ideas for teaching nuclear medicines in the classroom	<i>Julie Mulholland, Secondary Education Officer, ANSTO</i>
5:30	Closing and wrap up	<i>Tina Baradaran, Secondary Education Officer, ANSTO</i>

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Part 2: 4:00 – 6:00pm & 7:00 – 9:00pm

Time	Title	Presenter/s
4:00pm & 7:00pm	ANSTO Careers	<i>Rod Dowler, National Education and Engagement Manager, ANSTO</i>
4:15pm & 7:15pm	Graduate personal experience	<i>Raya Tasnim, Graduate, ANSTO</i>
4:30-5:55pm & 7:30-8:55pm	ANSTO Virtual Experience: <ul style="list-style-type: none"> <li>• OPAL Multipurpose reactor</li> <li>• ANSTO Nuclear Medicine Facility</li> <li>• SyMo Waste Management Facility</li> </ul>	<i>Tina Baradaran &amp; Julie Mulholland, Secondary Education Officer, ANSTO</i>
5:55-6:00pm & 8:55-9:00pm	Closing and wrap up	<i>Tina Baradaran &amp; Julie Mulholland, Secondary Education Officer, ANSTO</i>

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Secondary Science Teacher Professional Development Course Program

Part 3: 4:00 – 5:30pm & 7:00 – 8:30pm

Session 1		Workshop	Presenter/s
Time			
4:00 – 5:00pm	Workshop 1: Investigation Isotopes: Modelled teaching activities for Year 9 and 10 Science		<i>Julie Mulholland, Secondary Education Officer, ANSTO</i>
5:00 – 5:25pm	Workshop 2: Implementing activities in your classroom		<i>Tina Baradaran &amp; Julie Mulholland, Secondary Education Officer, ANSTO</i>
Session 2		Workshop	Presenter/s
Time			
7:00 – 8:00pm	Workshop 1: Investigation Isotopes: Modelled teaching activities for Year 9 and 10 Science		<i>Julie Mulholland, Secondary Education Officer, ANSTO</i>
8:00 – 8:30pm	Workshop 2: Implementing activities in your classroom		<i>Tina Baradaran &amp; Julie Mulholland, Secondary Education Officer, ANSTO</i>

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## Speakers Profiles



### Robin Davis, Industrial Chemist ANSTO

An industrial chemist by trade, Robin Davis has been explaining nuclear science to teachers, students, government and business stakeholders for over 20 years as an Education Officer at the ANSTO Discovery Centre.



### Prof. Michael Hofman, Nuclear Medicine Physician, PeterMac

Professor Michael Hofman is a nuclear medicine physician and physician-scientist with a broad interest in positron emission tomography (PET), molecular imaging applications in oncology and radionuclide therapy. He previously completed a research fellowship at Guy's & St Thomas' in London. His research has pioneered the use of PET and theranostics (radionuclide therapy) in a variety of domains. He is an international leader on the novel use of nuclear medicine for improving outcomes in men with prostate cancer.



### Pamela Naidoo-Ameglio, Executive Leader of Nuclear Operations ANSTO

Pamela is an Executive leader with a background in mining, nuclear, technology and governance through operational and corporate roles in public and private sector corporations. She focusses on the overlap of major projects and critical operations with stakeholder engagement and decision-making. As Group Executive, Nuclear Operations and Nuclear Medicine at ANSTO, responsible for nuclear medicine manufacturing, OPAL research reactor operations, radioactive waste management and major projects in the nuclear precinct,

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## Speakers Profiles



### Dr Bridget Murphy, Secondary Education Manager, ANSTO

Bridget Murphy has a background in biological science and science education and has worked in the ANSTO Education Team for ten years. Bridget is responsible for developing and delivering new programs for high school students and professional development for secondary teachers.



### Julie Mulholland, Secondary Education Officer ANSTO

Julie Mulholland is an Education Officer at the Australia's Nuclear Science and Technology Organisation. She is a highly experienced science educator, having over 30 years of experience teaching science, senior chemistry and senior physics in both TAFE and high schools, as well as 14 years as a Head Teacher Science. In 2013, she achieved a Minister's award for excellence in teaching. Julie is instrumental in developing ANSTO's data set resources for high school students.



### Tina Baradaran, Secondary Education Officer ANSTO

Tina Baradaran has a background in medical physics and science communication education. As part of the ANSTO Education Team, Tina uses her secondary expertise to assist the development of new education programs and professional development for secondary teachers.