Science Teachers' Association of Victoria Inc.
ABN 59 004 145 329
Patron: Dr Barry Jones, AO, FAA, FAHA, FTSE, FASSA, FRSA, FRSN, FRSV, FACE

Science Victoria
ABN 94 108 759 762

# Science Leaders' Conference 2018

## Science Leadership Matters

**For coordinators, managers, leading teachers and science educators aspiring to leadership**

**Friday 27 July 2018 at**
**Quantum Victoria, 235 Kingsbury Drive, Macleod West**

### Keynote Speaker

Prof Jan Van Driel, Professor of Science Education, University of Melbourne

### Plenary Speaker

Prof John Loughran, Executive Dean Education, Monash University

### Speakers include

- Maria James
- Alexandra Abela
- Jacqueline Lupton
- Nathan Moore
- Rachel Pascuzzo
- Jess Satori
- Marc Blanks

### Topics include

- Science and STEM for all students
- An inclusive Approach to Primary Science/ STEM Teaching
- Developing an Authentic Deep Learning Culture through Year 7 Innovation Project
- A tale of two tech schools: Re imagining STEM

### Registration includes

- Coffee/Tea on arrival
- Conference sessions
- Morning tea
- Lunch
- Meet'n Mingle

Conference Program & Registration Form overleaf>>

# Science Leaders' Conference 2018 Program

## Registration
**8:00am**

Arrival tea & coffee

## Welcome
**8:50am - 9:00am**

Soula Bennett, STAV President, Director Quantum Victoria

## Keynote
**9:05am – 9:55am**

Prof Jan Van Driel, Professor of Science Education, University of Melbourne

Jan has developed a strong international profile as a researcher in the domain of science education. In addition, he has also done substantial research in the domains of teaching & teacher education, and higher education. He has supervised PhD students in all three domains, and published in the respective top journals. Jan is regarded as one of the leading scholars in the world in research on science teachers' pedagogical content knowledge (PCK) and has published several highly cited articles about this topic and has given talks and workshops about this topic all over the world. Jan is co-Editor-in-Chief of the International Journal of Science Education and is a member of the editorial boards of a range of (inter-)national scholarly journals (e.g., Science Education, Journal of Research in Science Teaching, Pedagogische Studiën). His view is that an educational researcher should be engaged in issues of practice and policy and since 1987 has published in professional journals for science teachers, teacher educators and consultants, mostly in the Netherlands. Jan also co-authored the 'Invergowrie Foundation Report – 'Girls' Future – Our Future, The Invergowrie Foundation STEM Report'.

## Round Table Discussions
**10.00 am – 10.30 am**

## Morning Tea
**10.35 am – 10.55 am**

## VCAA Update
**11.00 am – 11.35 am**

Maria James

F-12

## Session 1
**11.50 am – 12.30 pm**

### Workshop A
### Science and STEM for all students

Alexandra Abela and Jacqueline Lupton (Penleigh and Essendon Grammar School)

An effective middle years Science Curriculum is one that is inclusive of all students and is relevant within the local, social and global contexts. The curriculum should address concerns such as conscious and unconscious biases and underrepresented cohorts, including girls. Delegates attending this workshop will be presented with strategies used across Penleigh and Essendon Grammar School's middle year's sections. The presenters will highlight strategies identified to enhance engagement by all students.

(Years 7-10)

### Workshop B
### An inclusive Approach to Primary Science/STEM Teaching

Nathan Moore and Rachel Pascuzzo (Charles La Trobe P-12 College)

Delegates to this workshop will be presented with the teaching strategies applied at Charles La Trobe P-12 College that have moved the school from a traditional primary science curriculum towards an inclusive hands on STEM program. The school caters for a diverse group of students and has developed an inclusive curriculum that ensures all students can access a rich STEM program. Delegates will see and hear from students and teachers as well as see work samples that link to the DET Framework for Improving Student Outcomes (FISO) model. Teachers will share their instructional model, assessment, and teaching and learning strategies that have been learned over the last two years (including successes, challenges and improvement opportunities).

(Primary)

### Workshop C
### Developing an Authentic Deep Learning Culture through Year 7 Innovation Project

Jess Satori, Brunswick Secondary College

Using a STEM framework to deliver an inclusive curriculum for all students at Year 7 and using the model across other year levels. Delegates attending this workshop will be introduced to the Model and the strategies implemented at Brunswick Secondary College to embed STEM authentically into the curriculum.

### Workshop D
### Are we leaving our science students out in the cold?

Cress Byrne, Mount Ridley P-12 College

Whether it is through conscious or unconscious biases or through delivery of Industrial revolution teaching methods in the 21st Century, students are flocking away from STEM based disciplines in droves. How then do we engage this Netflix generation? This interactive, hands on workshop provides student centred learning at its best with a 21st Century flavour. Delegates will leave with a gamut of strategies and resources that will inspire any leadership team and make the science classroom the place to be.

(Primary and Secondary)

**Workshop E**
**A tale of two tech schools: Re imagining STEM**

**Marc Blanks, Executive Director Tech Schools – Banyule Nillumbik and Whittlesea**

The Banyule Nillumbik and Whittlesea Tech Schools offer a unique opportunity to rethink learning and innovation for young people of the north of Melbourne. Designed as technology enabled innovation hubs powered by STEM, they look to provide a community where schools, industry and community can come together to challenge the local and global problems we face. With co-design in the DNA of the design of all elements of the Tech Schools including the built environment, learning programs and governance this model has created a new landscape for collaboration. Delegates attending this workshop will explore the development of the Banyule Nillumbik and Whittlesea Tech Schools, highlighting the achievements to date and also the directions for the future and will be presented with the framework/model used in the re-imagining of STEM.

**(Primary and Secondary)**

## Session 2

**12.35 pm – 1.15 pm**

**Workshop A**
**Science and STEM for all students**

**Alexandra Abela and Jacqueline Lupton (Penleigh and Essendon Grammar School)**

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**(Primary and Secondary)**

# Science Leaders' Conference 2018 Program

## Lunch
**1.20 pm – 1.50 pm**

## Plenary
**1.55 pm – 2.40 pm**

**Teaching is sophisticated business: What expert teachers do**

**Prof John Loughran, Executive Dean Education, Monash University**

Professor John Loughran was a secondary school science teacher before moving into tertiary education. He is a Sir John Monash Distinguished Professor and Executive Dean of the Faculty of Education, Monash University. John's research and teaching revolves around professional learning and inquiring into our own teaching practices; much of that work has shaped his book "*What expert teachers do: Enhancing professional knowledge for classroom practice*". He is concerned to draw attention to the need for teachers and teaching to be more highly valued both within the profession and the public more generally.

## Round Table Discussions: What Expert Teachers Do
**2.45 pm – 3.15 pm**

## Meet N Greet
**3.20 pm – 4.20 pm:**

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**OFFICE USE ONLY**
Registration Number

# Science Leaders' Conference Registration Form

Friday 27 July 2018 at Quantum Victoria

## Personal Details

**School Purchase Order No.** _____ STAV Individual Membership No. _____

Title: First name: Surname:

School/Organisation:

Email Address (all correspondence by email)

Address:

Suburb: State: Postcode:

Telephone: Mobile:

School Type: ☐ Government ☐ Independent ☐ Catholic ☐ Other

Region: ☐ Northern Metro ☐ Southern Metro ☐ Eastern Metro ☐ Western Metro
☐ Grampians ☐ Barwon Sth Western ☐ Gippsland ☐ Hume ☐ Loddon Mallee

School Level ☐ Early Years (P-4) ☐ Middle Years (5-8) ☐ Later Years (9 - 10) ☐ VCE

Gender: Male/Female Dietary requirements call STAV directly on 03 9385 3999

**Privacy Statement:**
☐ Tick box If you do not want your name and organisation on the list. In registering for the conference relevant details may be incorporated into a participant list for presenters only (name and organisation).

☐ **Meet'n Mingle is included in your registration, but for catering purposes please indicate by ticking the box if you will be staying.**

## Session Selection (fill in preferences)

| | | 1st | 2nd | 3rd |
|---|---|---|---|---|
| **Workshop A** Friday 11:50am - 12:35pm | 1 | | | |
| **Workshop B** Friday 12:40pm - 1:15pm | 2 | | | |

## Registration $298 per person

and includes Conference sessions, morning tea, lunch and meet'n mingle.
All prices quoted are GST inclusive. A tax invoice will be issued.

## Payment details ABN 94 108 759 762

**TAX INVOICE**

☐ Cheque - make payable to: **SCIENCE VICTORIA** ☐ Invoice School/Purchase order supplied

☐ Credit Card *(Please tick applicable)* ☐ VISA ☐ MasterCard

Card No. ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ Expiry Date ☐☐☐☐ CCV No. ☐☐☐

Name of Cardholder (please print) Signature

**Cancellation policy: 50% cancellation fee will apply. Notification of cancellation must be in writing.**
**There will NOT be any refund for cancellations made after 13 July 2018.**

## CLOSING DATE for Registration 5pm, Friday 13 July 2018

EMAIL: stav@stav.vic.edu.au • FAX: 9386 6722 • MAIL: STAV PO Box 109 Coburg VIC 3058