



VERMONT ACADEMY OF SCIENCE AND ENGINEERING

## **VASE ANNUAL REPORT FOR 2016-17**

The first, and largest, VASE event of the year was the annual meeting and public forum, held in UVM's Davis Auditorium on October 24, 2016, and attended by about 50 VASE members, honorees, guests, and the general public. The meeting began with a tribute to VASE founding member Dale Critchlow, who passed away May 6, 2016. This was presented on a video by John Cohn, who was traveling overseas. This was followed by a moment of silence in memory of Dale.

VASE Outreach Coordinator Grace Spatafora then presented the 2016 VASE Awards for Outstanding Teaching in Science. By vote of the VASE Trustees in 2015, these awards now honor the memory of another VASE founding member, Dr. Paula Fives-Taylor, who was passionate about education throughout her long career. This year's awardees were (Grades K-8): Megan Jolly, from the Albany Community School, Albany, and (Grades 9-12): Ann Marie Mahar, from Rutland High School, Rutland. The awardees each received an engraved plaque as well as a check for \$1000.

The keynote speaker for the evening was Dr. Robin Bell, Palisades Geophysical Institute/Lamont Research Professor at Columbia University's Lamont-Doherty Earth Observatory. Dr. Bell spoke on "Hidden Hydrology of Antarctica: Lakes, Rivers, and Waterfalls," illustrated by numerous spectacular pictures of the Antarctic environment illustrating Dr. Bell's work there. Her stimulating talk elicited numerous questions.

Following the meeting, VASE members, honorees, and guests reconvened for dinner in UVM's Waterman Manor. We welcomed three new members: Jane B. Lian, Professor of Biochemistry and Co-Director of the Translational Research at the UVM Cancer Center, Donna M. Rizzo, Professor of Civil and Environmental Engineering at UVM, and Janet L. S. Stein, also Professor of Biochemistry at UVM. After dinner, both of the science teacher awardees gave some personal remarks.


VASE's most important outreach program is our Small Equipment Grants, made to Vermont K-12 educators. In 2016 we received 13 proposals, almost all of them well developed and highly deserving. We were able to fund eight of these, with a funding total of \$7,414. A list of grantees follows this report.

Many of the grantees were able to attend the spring VASE meeting on May 9 at Waterman Manor. All had prepared informal presentations—demonstrations, videos, etc.—illustrating how they had used their grant funds and the response of their students. About 20 VASE members and guests attended. We found these uniformly creative and stimulating, and we came away with a renewed sense of the energy Vermont's teachers bring to our schools. The more formal part of

the program consisted of brief presentations by new members Jane Lian, Donna Rizzo, and Janet Stein, plus astrophysicist John O'Meara of St. Michael's College, who was elected to VASE in 2015 but had been traveling at the time of the 2016 spring meeting. All gave excellent short talks introducing the audience to their research.

In 2015, VASE was recognized by the IRS as a 501(c)(3) organization, which will facilitate our ability to pursue independent fund-raising. So far that has proved challenging, but the VASE Board is continuing to pursue possible funding sources.

Recipients of VASE Small Equipment grants are listed below, and the financial report for 2016-17 and 2017-18 proposed budget is on the following page.



P. Frank Winkler  
Gamaliel Painter Bicentennial Professor Emeritus of Physics  
VASE President  
August 14, 2017

#### **VASE Small Equipment Grants, 2016**

<b>Lead Teacher/Proposer</b>	<b>School</b>	<b>Town</b>
Asaro, Courtney	Edmunds Elementary School	Burlington
Bonnett, Seth	Manchester Elementary/Middle School	Manchester
Buck, Matt	Marion Cross School (K-6)	Norwich
Darley, Cathy	Orwell Village School (K-8)	Orwell
Depatie, Christine	Swanton School (K-6)	Swanton
McKinnon, John	Lyndon Institute (9-12)	Lyndon
Ruben, Karen	C. P. Smith Elementary School	Burlington
Young, Lisa	Bellows Free Academy (K-12)	Fairfax

**Vermont Academy of Science and Engineering**  
**Financial Report, July 1, 2016 - June 30, 2017**  
**Budget for July 1, 2017 - June 30, 2018**

	<b>2016-17 Budget</b>	<b>2016-17 Actual</b>	<b>2017-18 Budget</b>
<b>BALANCE, fiscal year beginning</b>	<b>\$ 1,595.45</b>	<b>\$ 1,595.45</b>	<b>\$ 2,477.39</b>
<b>RECEIPTS</b>			
Transfer from Technology Council	\$ 13,000.00	\$ 13,500.00	\$ 13,200.00
Contributions from members	\$ 1,100.00	\$ 1,180.00	\$ 1,100.00
<b>Total Receipts</b>	<b>\$ 14,100.00</b>	<b>\$ 14,680.00</b>	<b>\$ 14,300.00</b>
<b>EXPENDITURES</b>			
<b>Fall Meeting and Public Forum</b>			
Travel & accommodation for speaker, Robin Bell	\$ 500.00	\$ 572.94	\$ 700.00
Honorarium to speaker, Robin Bell	\$ 500.00	\$ 500.00	\$ 500.00
Catering*	\$ 2,000.00	\$ 1,976.70	\$ 2,200.00
Conference & Events charge	\$ 150.00	\$ 65.91	\$ 100.00
New member certificate frames, etc.	\$ 150.00	\$ 159.33	\$ 200.00
<b>Teacher of the Year Awards</b>			
Two awards @ \$1000	\$ 2,000.00		\$ 2,000.00
Ann Marie Maher		\$ 1,000.00	
Megan Jolly		\$ 1,000.00	
Engraved Plaques	\$ 400.00	\$ 162.68	\$ 200.00
<b>Small Equipment Grant Awards to Teachers</b>			
7 @ \$1000	\$ 7,000.00		\$ 7,000.00
Orwell Village School		\$ 997.00	
C.P. Smith Elementary, Burlington		\$ 1,140.00	
Lyndon Institute		\$ 855.00	
Marion Cross Elementary, Norwich		\$ 871.00	
Edmunds Elementary, Burlington		\$ 1,000.00	
Swanton School		\$ 700.00	
Manchester Elementary/Middle School		\$ 852.00	
Bellows Free Academy, Fairfax		\$ 999.00	
<b>Total Grant awards</b>		<b>\$ 7,414.00</b>	
<b>Spring Meeting Expenses</b>	\$ 800.00		\$ 800.00
Catering		\$ 347.00	
Conference & Events charge		\$ 112.00	
<b>Accounting and Legal expenses</b>	\$ 600.00		\$ 600.00
Tapia & Huckabay (accounting)		\$ 487.50	
<b>Total Expenditures</b>	<b>\$ 14,100.00</b>	<b>\$ 13,798.06</b>	<b>\$ 14,300.00</b>
<b>BALANCE, fiscal year end</b>	<b>\$ 1,595.45</b>	<b>\$ 2,477.39</b>	<b>\$ 2,477.39</b>

\*Cost of member dinners is largely offset by member contributions