



# AIR FORCE MATERIALS AND MANUFACTURING ALUMNI ASSOCIATION (AFMMAA) NEWSLETTER

TWENTY FOURTH EDITION

SPRING 2016

## AFRL/RX DIRECTOR'S MESSAGE

Thanks again for every thing the Air Force Materials and Manufacturing Alumni Association (AFMMAA) has done and continues to do for the Directorate. In the last couple articles I have written about our vision, focus areas, and tenants for success. For Monty Python fans “now for something completely different” – How about an article on RX materials challenges?

The first challenge is to develop a new high temperature materials for as an AFRL hypersonic gamechanger. We are moving metal up the temperature scale with new superalloys and working matrix composite compositions to enhance our knowledge and determine manufacturability. We have reached out to our international partners in Israel, Italy, UK, and Japan to further our research. The bottom line realized is that high temperature materials have a variety of potential solutions so technical maturation and risk reduction is a must.



**Thomas A. Lockhart**

The next challenge would be additive manufacturing (AM)...additive manufacturing, and additive manufacturing – ugh! The good news, RX is the subject matter expert for AM; however, this means we invest much time and resources to answer inquiries about AM – certification, qualification, and application. We have participated in the National AM Institute (America Makes), presented to the Command, and, later on this summer will be presenting to the SECAF & CSAF.

Standing on the shoulder of Giants (Dr. Russo, Dr. Walker, and Dr. Stevens), our final challenge is Integrated Computational Material Science and Engineering, also known as ICMSE. This challenge is leading RX into the 21st century digital world. As defined before the Science Advisory Board, ICMSE is linking physics-based models to manufacturing to long term affordability and sustainment, more commonly referred to as a Digital Thread - Digital Twin. The trifecta is high strength material additively manufactured with a life cycle digital

model – pretty impressive challenge(s)!

Finally, RX continues to reach out to our customer base to ensure we are revolutionary, responsive, and relevant. Preliminary Science Advisory Board results are in and they are some of the highest scores RX has every received. Overall RX is doing great!

*Tom Lockhart, SES  
Director, AFRL/RX  
Lifetime Member of AFMMAA*

## AFMMAA PRESIDENT'S MESSAGE

Clearly, my most important message to you is – SEE YOU AT THE 15 JUNE MEETING AT THE ENGINEERS CLUB OF DAYTON!! Last year's turnout was the largest ever. Let's make this one just as much fun.

I would like to provide a special recognition to two AFMMAA members. Kay March is a Life Member who has just achieved Platinum status with her scholarship gift of \$1000 and her challenge to the rest of us to match her generosity. Kay was also instrumental in meeting with George and Judie Peterson, mentioned elsewhere in this issue of the Newsletter. Dilip Punatar is a brand new Life Member, just having retired from RX, and is also a \$1000 Platinum donor to the Scholarship fund. Dilip's son, Ankit, was the first recipient of the Chief Scientist's Scholarship in 2002. Dilip and his wife have also pledged to continue their extremely generous giving over the next several years. We will be recognizing both Kay and Dilip at the 15 June Annual Meeting, as well as the other new Platinum donors, Paul Propp and John Williamson. Please note the other scholarship donors listed in the Newsletter. Their contributions are vital to enhancing the scholarship funding process that relies on membership dues and Combined Federal Campaign contributions.

Your AFMMAA has been participating as a member of the planning team for the 2017 100th Anniversary of the Materials and Manufacturing Directorate. Amy Whitney-Rawls, the Assistant to the Director, leads the team. You will see further information about the planning elsewhere in this Newsletter. We have said that AFMMAA stands ready to provide whatever support we can. In addition, at the last planning team meeting, the selection of the publisher of the 100th *(Continued on Page 2)*

*(AFMMAA President's Message continued)*

Yearbook was announced and a sample of the book that they did for AFOSR was provided. We hope to have a discussion of this at the 15 June Annual Meeting. We are unsure at this point how this company might make use of the historical files that have been catalogued and safeguarded by UTC over the years.

I would like to take this time to again provide recognition for and a personal thank you to all of the key people working directly on or supporting the Board's actions: Matt Di Biase as Executive Vice President; Neal Ontko, Vice President, Membership and RX liaison; Dennis Naughton as the treasurer; Don Shrader as our secretary; George Slenski as our webmaster, and Dr. Jim Malas as the Scholarship Chairperson. The Newsletter Chairperson continues to be unfilled and I am subbing for now. Volunteer positions are as follows: Dick Engman continues as a membership advisor for both Neal and myself; George Schmitt continues in his role as a liaison to RX (with Neal Ontko); John Williamson is graciously continuing as the AFMMAA Luncheon Coordinator. When you see them, please show them your appreciation for their hard work.

I will close by again volunteering to be your conduit to the Materials and Manufacturing Directorate. If you have any comments or concerns that you would like passed on to the RX leadership, feel free to send me an e-mail or to call me.

*Sincerely,*  
*Tobey Cordell, AFMMAA President*  
*tobeyf1@gmail.com 937-287-1871*

## RX INDIVIDUALS RECOGNIZED BY OUTSIDE ORGANIZATIONS

This is an impressive list which demonstrates the directorate's contributions. It shows people have continued to excel even when technical society participation has been de-emphasized in recent years. Fortunately that's changing.

**Rajesh Naik** - Arthur S. Flemming Federal Award in Basic Science to Outstanding Federal Employees

**Byron Edmonds and Reji John** - AFRL Technical Fellows 2015

**Adam Pilchak** - AFRL Early Career Award 2015

**Larry Butkus** - Fellow of American Society of Mechanical Engineers (ASME)

**Ed Hermes, Jeff Baur, and Mike Durstock** - Outstanding Scientists and Engineers by Affiliate Societies Council (ASC) of Dayton

**Rich Vaia** - Fellow of American Chemical Society (ACS)

**Benji Maruyama and Jaime Tiley** - Fellows of American Society of Materials (ASM)

**Katie Thorp** - Fellow of Society for Advancement of Materials and Process Engineering (SAMPE)

**Allan Katz** - Technical Achievement Award - The Technical Cooperation Program (TTCP)

*George F. Schmitt*  
*Director, International Programs*  
*AFRL/RXO*

## MEMBERSHIP STATUS

We continue to reach out to many in RX who nearing retirement and also RX industry friends in the Dayton community. So far in 2016 we have been fortunate to have 5 new members join and 4 members became "Lifers." The new members are: **Nils Fernelius, Dr. Ted Nicholas, Frank Kelley, and George & Judie Peterson.** New Life Members are: **Robert Albrecht, Jeff Guthrie, Dr. Tom Moran, and Dilip Punatar.**

Our current membership now consists of approximately 160 alumni. This includes 12 Charter members, 84 Life members and 83 members who pay yearly dues. Another 100 alumni currently receive the Newsletters, but have not joined or recently paid dues.

If you have not paid your 2016 dues or want to become a member please use the Membership Application and Scholarship Donor Form in the Newsletter. Also, please give some serious thought to becoming a Life member. Your membership dues, Life Memberships and scholarship contributions are tax deductible. All are very essential for us to continue a successful program. Please contact me, Neal Ontko, at [nrontko@yahoo.com](mailto:nrontko@yahoo.com) if you have any recommendations on how we can better reach out to our alumni base.

*Neal Ontko, Vice President, Membership*

## AFRL/RX SCIENTIST RECEIVES AWARD FROM PRESTIGIOUS RESEARCH SOCIETY

Dr. Timothy White of the Materials and Manufacturing Directorate, Air Force Research Laboratory was recently named a recipient of the prestigious Outstanding Young Investigator Award of the Materials Research Society.



**Dr. Timothy  
White**

This award recognizes exceptional, interdisciplinary scientific work in the field of materials science by a young scientist or engineer who also shows excellent promise as a developing leader in the materials research community.

Nominees for this award must be a young scientist or engineer who has contributed in an outstanding and innovative way to the progress of materials research.

White is currently Research Team Leader in the Photonic Materials Branch and was chosen for this award based on his work with liquid crystalline materials. Liquid crystals are best known for their use in displays. Our efforts at AFRL have focused on extending the applicability of liquid crystals beyond display applications.”

“I was pleasantly surprised”, White said of the honor. “I am and continue to be extremely humbled by the honor and can only thank the researchers and post-doctoral associates in my research group, as well as the organization for fostering such a great environment to grow as a young scientist and work problems that are important for our nation’s defense.”

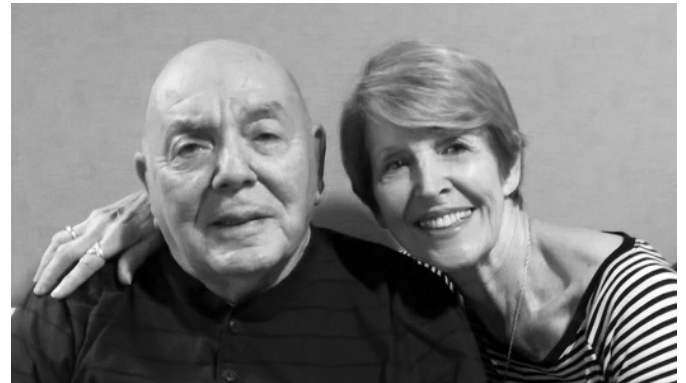
The Materials Research Society is a recognized leader in the advancement of interdisciplinary materials research. Headquartered in Warrendale, Pennsylvania (USA), MRS membership now spans over 80 countries.

The Air Force Research Laboratory’s Materials and Manufacturing Directorate develops materials, processes, and advanced manufacturing technologies for aircraft, spacecraft, missiles, rockets, and ground-based systems and their structural, electronic and optical components. Air Force product centers, logistic centers, and operating commands rely on the directorate’s expertise in materials,

nondestructive inspection, systems support, and advanced manufacturing methods to solve system, expeditionary deployment, and operational challenges.

## THE PETERSONS

Kay March visited with George and Judie Peterson in Delaware, Ohio and was kind enough to supply us with a picture of them that she took on her cellphone. We wish them the best.



**George and Judie Peterson**

Kay was also kind enough to sponsor both of them for a membership in AFMMAA. Good work!

## ARE YOU A CURRENT AFMMAA MEMBER?

The annual dues are \$10.00, or a Lifetime Membership is available for \$150.00. If your dues lapse for one year, your membership will become inactive. Our records indicate there are still a number of members who have not paid their 2016 membership dues. We don’t want to lose a valuable resource to the Association – YOU!

**Please give serious consideration to joining us. Enclosed is a form that can be returned to become an active member.**

## NOTICE

In order to control our costs and optimize our service to RX and our members, we are considering only mailing Newsletters in the future to AFMMAA Members (Charter, Life and Annual). If you have not already done so, please take advantage of this opportunity to fill out the membership form (Page 7) and continue to enjoy our Spring and Fall Newsletters.

## AIAA FELLOW RECOGNITION

Congratulations to Dr. Ajit Roy (RXAN) for his selection as an AIAA Fellow. The American Institute of Aeronautics and Astronautics (AIAA) is the world's largest aerospace professional society. AIAA Fellows are "persons of distinction in aeronautics or astronautics, who have made notable and valuable contributions to the arts, sciences, or technology thereof." Only one member of the Institute for every 1,000 members (0.1% of membership - truly selective) is elected as a Fellow each year by the AIAA Board of Directors.

*George F. Schmitt  
Director, International Programs  
AFRL/RXO*

## OUTSTANDING YOUNG INVESTIGATOR AWARD

Congratulations to Dr. Timothy White (RXAP) for his selection as one of two recipients of the Outstanding Young Investigator Award of the Materials Research Society! This award recognizes exceptional, interdisciplinary scientific work in the field of materials science by a young scientist or engineer who also shows excellent promise as a developing leader in the materials research community. A nominee must be a young scientist or engineer who has contributed in an outstanding and innovative way to the progress of materials research; the work should have a significant interdisciplinary aspect. The nominee shall not have reached his/her 36th birthday prior to January 1 of the year in which the award recipient is announced and the award is presented.

He was chosen from a large group of extraordinary nominees "for innovations in the preparation and applications of photo-responsive materials."

This is a very selective award. Kudo's to MOTU (Tim)!

*George F. Schmitt  
Director, International Programs  
AFRL/RXO*

## GETTING AFMMAA EMAILS?

Are you receiving emails from us for the AFMMAA Dayton area monthly luncheons? If not, please send an email to the Membership Chairman, Neal Ontko (nontko@utcd Dayton.com), or Dick Engman (dkengman@msn.com) and we will add you to our list. We do not share your email addresses or personal information.

The AFMMAA (John Williamson) organizes an informal lunch at a Dayton area eatery and typically sends an email notice for the monthly luncheons if you let us know you would like to be added to distribution for the monthly lunch.

The semi-annual AFMMAA meetings, and the RX Annual Awards Recognition Ceremony - Luncheon also go out electronically as well as written up in the newsletters.

We do this with emails to our "local area" addresses to the Dayton area alumni and friends for the monthly lunch and to our "all alumni" addresses to everyone for the semi-annual meetings. We want to insure you are notified of key events which may be of interest to you. Please let us know if we can serve you better.

*Neal Ontko  
Membership Chairman*

## LOSSES FROM THE RX (ML) FAMILY

We regret to inform you of the following losses from the RX Family that we have heard of since our last Newsletter.

Dr. Larry Bidwell 31 October 2015

Larry joined the U. S. Air Force after participating in ROTC at The Ohio State University. He subsequently earned his Ph.D. in Metallurgical Engineering. He retired as a civil servant from ML in 1993. He retired from the Universal Technology Corporation in 2006.

Donald Forney 11 April 2016

Don graduated from Texas A&M University and joined the U.S. Air Force, working at WPAFB in Metallurgical Research. After completing his military service, Don became a civil servant in the Air Force Materials Laboratory. Don retired from the Air Force in 1989. He was an honorary member of the Pearl Harbor Survivors Association.

If you know of any others and would care to share this information, please contact us.

## ALUMNI MERIT SCHOLARSHIPS

This is to announce the 2016 offering of the RX Alumni Association Merit Scholarship Program. The attached information describes the purpose, criteria, eligibility, selection process and other relevant information. An Application Form is also provided.

Scholarships (Alumni Association and Chief Scientist's) of up to \$2000 each are to be awarded to selected high achievement, educationally-oriented sons or daughters or grandchildren of current RX government employees (civilian or military) who are about to graduate from high school and begin their higher education. While the focus of the awards is to assist recent high school graduates entering their first year of a qualified four-year College or University program, consideration will also be given one time to students engaged in their first or second (freshman/sophomore) year of a qualified program.

Award information is also available at the AFMMAA website <http://afmmaa.org/Default.aspx?pageId=1222528> or from Dr. Jim Malas, Scholarship Committee Chairman, at 937-426-8530 or [jmalas@utcd Dayton.com](mailto:jmalas@utcd Dayton.com)

Applications must be complete and postmarked by 24 June 2016 to be eligible for this cycle. Alternatively, the applications may be scanned and emailed by 24 June 2016 to: [jmalas@utcd Dayton.com](mailto:jmalas@utcd Dayton.com).

Awards are planned to be announced in the Fall time frame for application to Fall 2016 academic semester/quarter tuition and general fees.

*Jim Malas,*

*Scholarship Committee Chairman*

## RECENT MEMBER INFORMATION AS OF 15 APRIL 2016

During the year many of our members have provided comments for the AFMMAA Newsletter and website regarding their current activities and interests. Here are their recent comments we received since the Fall 2015 Newsletter.

**Doris L. Butler**, [dorisdb1@gmail.com](mailto:dorisdb1@gmail.com), Headed to a new normal from Gillian Barre' for the second time! Doing great!

**Jack Conner**, [jconner@columbus.rr.com](mailto:jconner@columbus.rr.com), Retired from Battelle in 1988. Worked on Beryllium for AFRL, joined AEC in 1960 in Nuclear Materials, then Battelle in 1965. A good life indeed!

**Robert J. Gran**, [rjgran944@roadrunner.com](mailto:rjgran944@roadrunner.com), Retired as President of Universal Technology Corp (UTC) in 2004. Presently Chairman of the Board.

**Frank Kelley**, [fkelly@uakron.edu](mailto:fkelly@uakron.edu), Retired as Dean Emeritus Univ of Akron. Was Chief Scientist, then Director of AFML 1973-78. Lives with wife of 56 years in log home on Atwood Lake.

**John F. Maguire**, [JohnMaguire@SciSimSystems.com](mailto:JohnMaguire@SciSimSystems.com), Chief Technology Officer at Scientific Simulation Systems, Inc.

**Ted Nicholas**, [tednicholas@msn.com](mailto:tednicholas@msn.com), Living in Salem Oregon, now fully retired.

**Paul Propp**, [pmpropp@sbcglobal.net](mailto:pmpropp@sbcglobal.net), The Doc said I have a severe disequilibrium. Looked it up in Glasotone physical chem- no help, probably due to global heating, man made that is!

**Dilip Punatar**, [Punatar@hotmail.com](mailto:Punatar@hotmail.com), Program Manager, Electronics & Sensor Branch, RXM. Became AFMMAA Life Member in Jan 2016.

**John Williamson**, [john13@earthlink.com](mailto:john13@earthlink.com), I visited my 101st country in 2015. Also finished writing a book on "1673-1800 Land Records in Part of Delaware" and got first proof copy printed.

We would like to hear from you! If you wish to share your recent activities or interest with others on the AFMMAA website [www.afmmaa.org](http://www.afmmaa.org), please send an email to Neal Ontko at [nontko@utcd Dayton.com](mailto:nontko@utcd Dayton.com).

## AFMMAA ANNUAL MEETING

You are invited to the Annual AFMMAA meeting on Wednesday, 15 June 2016 at the Engineers Club of Dayton. The luncheon will be \$25 at the door and the agenda is as follows:

- 1030 Social Hour – meet and greet old friends
- 1120 Group Photo with Mr. Lockhart
- 1130 Welcome by Tobey Cordell, President
- 1135 Buffet Luncheon
- 1200 Tom Lockhart, RX Director, Remarks
- 1230 Around the Room and Business Meeting
- 1330 Socialize

Please let us know that you are coming so that we can have a headcount for the Club. Please RSVP by e-mail to Tobey Cordell, [tobeyf1@gmail.com](mailto:tobeyf1@gmail.com).

**YOUR AFMMAA OFFICERS AND COMMITTEE CHAIRS**



**Tobey Cordell**  
President



**Matt Di Biase**  
Exec. Vice President



**Neal Ontko**  
Vice President,  
Membership



**Dennis Naughton**  
Treasurer



**Don Shrader**  
Secretary



**Jim Malas**  
Scholarship

**AIAA SINGLES OUT AFRL  
RESEARCHERS FOR 2016  
FELLOWS HONOR**

Dr. Timothy Bunning, Chief Scientist of the Air Force Research Laboratory Materials and Manufacturing Directorate, has been named a 2016 Fellow of the Materials Research Society, a community of professionals that promotes the sharing and advancement of ideas to improve the quality of life and the state of materials research worldwide.



**Dr. Timothy Bunning**

As Chief Scientist, Dr. Bunning defines a strategic direction for the organization’s research activities. He also acts as a bridge between AFRL and academia, industry, and entities within the Department of Defense to coordinate efforts and integrate materials research at all levels of technical and manufacturing readiness.

A highly-respected scientist with a focus on optical materials, Bunning receives this honor “for the discovery and development of responsive soft matter electro-optical and photosensitive molecular architectures based on polymer and/or liquid crystalline materials.”

“I am truly humbled, as I have been incredibly blessed to have top-notch people surrounding me day-to-day,” said Bunning. “Being named a Fellow is a testament to the passion and creativity of all those I have worked with through the years. Research in today’s environment is truly a team sport and recognition of any one individual on the team is really a nod to the team itself.”

The Materials Research Society, comprising over 16,000 members from the United States as well as nearly 80 other countries, brings together professionals from

various fields of science affecting materials. It awards fellowships to only 0.2 percent of its total membership annually, making it a highly-competitive honor.

The full listing of 2016 Materials Research Society Fellows can be found at <http://www.mrs.org/current-mrs-fellows/>.

**AFRL/RX ANNUAL AWARDS**

Congratulations to the following 2016 AFRL/RX Annual Award Winners. Their hard work, commitment, and results have earned each of them recognition as the best of the best among their respective professional peer groups. I am proud of all of you, individuals and teams, for the work you do every single day and I couldn’t be more proud to be your Commander.

- Field Grade Officer of the Year:  
Maj Matthew Quinton (AFRL/RX)
- Administrative Excellence (Individual):  
Ms. Deyanira Reid (AFRL/RX)
- Commander’s Cup  
(Richard Neal Special Recognition) (Team):  
STAR Lab Team (AFRL/RX)  
Mr. Brandon Black, Mr. Douglas Carter,  
Mr. Alan Fletcher, Dr. Ryan Justice, and  
Mr. Ryan Osysko

*Maj Gen Thomas J. Masiella  
Commander/AFRL*



***Spring is in the Air!***



**AIR FORCE MATERIALS & MANUFACTURING  
ALUMNI ASSOCIATION (AFMMAA)**

**P.O. Box 341413, Dayton, Ohio 45434-1413**

**MEMBERSHIP APPLICATION AND SCHOLARSHIP DONOR FORM**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone -- Home: \_\_\_\_\_ Work: \_\_\_\_\_

E-mail: \_\_\_\_\_ Is E-mail new? \_\_\_\_\_

Check here if we **CANNOT** release your information, i.e., address or e-mail.

Year departed/retired from RX: \_\_\_\_\_

RECENT INFORMATION ABOUT YOURSELF (for the website): \_\_\_\_\_

\_\_\_\_\_

In what areas would you like to support AFMMAA? \_\_\_\_\_

Your are invited to join (\$10/yr annual CY 2016 dues), become a Life Member (\$150) and/or make donations to the Alumni Association Scholarship Program.

\$ \_\_\_\_\_ **Alumni Association Scholarships** (open to students pursuing a degree generally related to the Air Force Science & Technology program, with emphasis on materials sciences, manufacturing technologies or associated management specialities (financial, logistics, administrative, etc).

\$ \_\_\_\_\_ **Chief Scientist Scholarship** (open to students pursuing an accredited degree in a field of science, math, engineering or technology)

\$ \_\_\_\_\_ **Annual Membership Dues** (for CY 2016, i.e., 1 Jan - 31 Dec '16) are \$10.

\$ \_\_\_\_\_ **Lifetime Membership is available for \$150 (one time fee)!**

\$ \_\_\_\_\_ **\*Total Amount Enclosed**

**\*NOTE: Scholarship contributions and membership dues are tax deductible.**

**Membership Category:**

\_\_\_\_\_ **Annual (\$10.00/year)**

\_\_\_\_\_ **Lifetime (\$150.00 one time fee)**

**Make check payable to AFMMAA and send form to:  
AFMMAA, P.O. Box 341413, Dayton, OH 45434-1413**

## THE 100 YEAR ANNIVERSARY IS COMING!

The Air Force Research Laboratory's Materials and Manufacturing Directorate traces its roots back to the opening of McCook Field in downtown Dayton, Ohio. McCook Field opened its doors on 4 December 1917. Back then, the Materials department was part of the Army Signal Corps. The Materials Section was led by Lieutenant Colonel H. C. K. Muhlenberg and consisted of the following branches: Liaison, Chemical, Physical Testing, Metallurgical, Wood, Textile, and Rubber.



**Personnel of the Engineering Division of the Air Service McCook Field, Dayton, Ohio – 1917**

Today the Materials and Manufacturing Directorate (AFRL/RX) is led by Mr. Thomas Lockhart and consists of the following Divisions: Financial Management, Integration and Operations, Management Operations, R&D Contracting, Functional Materials, Structural Materials, Manufacturing and Industrial Technologies, and Systems Support.



**Personnel of the Materials and Manufacturing Directorate of the Air Force Research Laboratory – 2015**

As part of 100 years in advancing materials and manufacturing technologies to where we are today, AFRL/RX along with the Alumni Association will be celebrating through various events. The events planned include:

- Picture of the RX Complex
- 100 Year Logo/Slogan
- 100 Year Picnic
- Physical Commemoration
- Theme for Annual Awards Ceremony
- 100 Year History Book
- Video Documentary
- 100 Technologies of RX – celebrating a new technology for 100 days
- Future of Research Seminar Series
- Time Capsule
- Capstone Banquet

In addition, AFRL/RX is collaborating with other organizations both at Wright-Patterson AFB and in the community. Several other events are planned to celebrate with others to include an AFRL Open House and a Community McCook Field Site Commemoration.

*(Continued on Page 9)*



*(The 100 Year Anniversary is Coming! continued)*

Details of the events and the schedules are being pulled together now by the Team (which includes AFMMAA representation) and will be shared in the future.

The first event, the 100 year Logo/Slogan Contest, kicked off on 26 Apr 2016. “In celebration of our directorate’s 100th anniversary, we’d like to have a friendly competition for a short slogan or logo change that will be used on posters, PowerPoint templates, the anniversary book and more. The slogan should represent our directorate’s 100 years of contribution to our military. Please submit your entry to Jane Hartley (Jane.Hartley@us.af.mil) no later than 31 May 2016.” We welcome any ideas or suggestions from the Alumni Association. A sample is below.



**•Logo/Slogan Examples**

- To be used on our template
- In the 100 year book
- Coasters
- Anything swag we use for the celebrations

Solving materials and manufacturing issues for 100 years!



We are looking forward to celebrating 100 YEARS OF WORLD-CLASS LEADERSHIP IN MATERIALS AND MANUFACTURING FOR OUR AIRMEN. For further information, please contact Amy Whitney-Rawls at 937-656-9200 or at amy.whitney-rawls@us.af.mil.

*Amy Whitney-Rawls,  
RX Team Leader*

**AFMMAA SCHOLARSHIP DONORS**

Since 2001, members of the Air Force Research Laboratory Materials and Manufacturing Directorate, AFRL/RX alumni, and friends of the Air Force Materials and Manufacturing Alumni Association have contributed over **\$26,000** to the Scholarship Fund. Additionally, many RX individuals have contributed over **\$18,000** to the AFMMAA through the CFC and United Way Programs. We thank all for their generous giving. It is very essential to make our scholarship program so successful. New 2016 donor amount changes/increases are shown in **bold**.

Platinum Donors (\$1000 and over)

Dr. Wade Adams	Mrs. Julia Millham
Robert L. Denison	<b>Paul Propp</b>
Dr. Thomas D. Fiorino	<b>Dilip Punatar</b>
Dr. Alan Lovelace	<b>John Williamson</b>
<b>Ms. Kay March</b>	

Gold Donors (\$500 to \$999)

Tom Cooper	Dr. G. Edward Kuhl
<b>Gordon H. Griffith</b>	Gary Waggoner
Kenneth Kojola	

Silver Donors (\$200 to \$499)

AFRL/MLO	<b>Dr. Douglas Hutchens</b>
AFRL/ML Exec. Group	Warren Johnson
Lyn Brown	Meir and Ruth Pachter
Dr. Larry Butkus	John Rhodehamel
Dr. and Mrs. Ronald Eby	Dr. George St. Pierre
<b>Ken Elbaum</b>	Don Tarazano

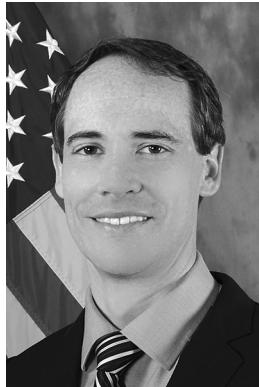
Bronze Donors (\$100 to \$199)

AFRL/MLB	Bobby McConnell
AFRL/MLLMN	Charlotte McConnell
Dr. Larry Bidwell	Zoe Dell Nutter
<b>Jack Conner</b>	<b>Jerry Petrak</b>
Maj. Gen. (Ret.) Terry L. Drake	Paul Sampson
<b>Robert Drerup, Jr.</b>	Robert T. Schwartz
Dick Engman	Dr. Kathy Stevens
Dr. Barry & Sharon Farmer	Dr. Edwin L. Thomas
Jacques Hemes	Hardy Trolander
Jim Huffman	Dr. Andrey A. Voevodin
Dr. Ronald J. Kerans	<b>Roland Watts</b>
Lou Luedtke	Dennis E. Wisnosky
Rich Lusignea	Bill Woody

## AFRL/RX ENGINEER LAUDED FOR ADVANCED DOMESTIC MANUFACTURING CAPABILITIES

Air Force Research Laboratory materials engineer Dr. Benjamin Leever received the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics Award of Excellence at a February 22, 2016, ceremony at the Pentagon.

The Honorable Frank Kendall presented the award for Leever's integral role in standing-up the newest U.S. Department of Defense Institute for Manufacturing Innovation.



**Dr. Benjamin  
Leever**

An expert in integrated devices, flexible electronics, and multifunctional structures, Leever serves as the AFRL Portfolio Lead for Airman Performance Monitoring and Aeromedicine, where he determines technical strategy, manages AFRL contracts, and establishes industrial, academic, and governmental collaborations.

Leever is an active proponent of the utility of flexible hybrid materials and electronics for applications such as energy storage, sensing, structurally-integrated antennas, structural health monitoring, and many other military and commercial uses. He has been instrumental in promoting these technologies to manufacturers and customers and encouraging the exchange of ideas and resources within the professional community.

This award comes as a result of Leever's recent contributions to help enable the development and implementation of the American Institute for Manufacturing Integrated Photonics, the NextFlex Flexible Hybrid Electronics Manufacturing Institute, and the Revolutionary Fibers and Textiles Institute for Manufacturing Innovation. These White House-sponsored public-private partnerships are designed to address the full spectrum of multifunctional materials development, from design to manufacture, creating a domestic manufacturing "ecosystem." In addition to his AFRL role in Performance Monitoring, Leever also serves as the Government Chief Technology Officer for NextFlex.

"It's a great honor to be recognized by the acquisitions community for our efforts to deliver game-

changing technologies to our airmen based on flexible hybrid electronics. NextFlex and the other Manufacturing Institutes offer a unique and critical opportunity to collaborate with companies and universities to build a sustainable manufacturing infrastructure in the US," Leever said.

The Award of Excellence is presented annually to civilian and military personnel who demonstrate innovation and best practices in acquisition or in furthering life cycle cost reduction in the Department of Defense.

## 2015 COMBINED FEDERAL CAMPAIGN

Your AFMMAA, as a local independent charity, has received approval to participate with Miami Valley Combined Federal Campaign (MVCFC) in 2016. During the calendar year 2015, AFMMAA received \$2,436 from the MVCFC. All CFC pledges to AFMMAA's fund number (85464) go to support our Scholarship Fund! AFMMAA expresses sincere appreciation to those in RX who have pledged in the past and welcome continued support and consideration from others for the 2016 campaign. The AFMMAA intends to participate/exhibit in the MVCFC Kickoff scheduled in early October at the Nutter Center to foster greater awareness of the Association and its scholarships.



## THE RX EMBLEM: SYMBOLIC OF OUR DIRECTORATE AND MISSION

The gold circle of arrows projecting outwards signifies the extension of knowledge beyond present boundaries. The three arrows represent materials research, application, and manufacturing technology. The inward pointing arrows portray the extensive efforts contributing to the circle of knowledge. The emblem bears the Air Force colors, gold and ultramarine blue. Against a background of blue, depicting the sky, the primary theatre of the Air Force operations, the central atom represents the building block of all materials.



## AFMMAA CHARTER AND LIFE MEMBERS

We currently have 84 Life Members and hopefully that number will continue to grow each year. Four members (shown below in **Bold**) became “Lifers” in 2016. If you are not a “Lifer” we encourage you to sign up now. **Robert Albrecht, Jeff Guthrie, Dr. Tom Moran, and Dilip Punatar** recently became the newest “Lifers.” If you are currently a Life Member we encourage you contact fellow alums who aren’t and encourage them to “upgrade.” If you wish to become a Life Member, pay yearly dues or contribute to the scholarship fund please use the membership and scholarship donors form in the Newsletter or on the [afmmaa.org](http://afmmaa.org) website. Your memberships and scholarship contributions are very necessary for our mission and to grow our annual scholarships. A list of the Charter and Life Members is shown below.

<b>AFMMAA Charter and Lifetime Members - April 2016</b>		
<b>Charter Members</b>		
Wade Adams	Craig Hartley	Bob Rice*
Bernard Chasman	Bill Kessler	Lynn Trainor
Tom Cooper	Jim Mattice	Ben Wilcox
Gary Denman	James Myers	John Williamson
<b>Lifetime Members</b>		
<b>Robert Albrecht</b>	Lois J. Gschwender	Bob Rapson
Mark Anderson	<b>Jeffery Guthrie</b>	John Rhodehamel
Tia Benson-Tolle	James A. Hall	Terry M. Ronald
Larry Bidwell*	John Henderson	Dr. Vince Russo
Phil Bouchard*	Ed Hermes	Timothy J. Sakulich
Lyn Brown	Rob Hull	Paul Sampson
Dr. Charles E. Browning	Henry Johnson	Robert Schafrik
Dr. Tim Bunning	Warren Johnson	Stan Schulman
Lawrence Butkus	David Judson	George Schmitt
John Christian	Bob Kincses	Don Shrader
Dr. Bob Cochoy	John Koenig	Jerry Sieron*
Dennis Corbly	Dr. Edward Kuhl	George Slenski
Tobey Cordell	William V. Lampert	Dr. James Snide
Ron Decker	Cole Litton*	John Speers
Mathew DiBiase	Thomas A. Lockhart	George St. Pierre
Ken Elbaum	Dr. Jim Malas	Dr. Katherine A. Stevens
Dick Engman	Kay March	Donald Tarazano
Kathleen Falensky	Michael McCabe	Scott Theibert
Frank Feчек	Bobby McConnell	Jon Tirpak
Larry Fehrenbacher	Dr. Dan Miracle	Angie L. Tymofichuk
Dr. Thomas Fiorino	<b>Dr. Thomas Moran</b>	Andrey A. Voevodin
David W. Fischer	James L. Mullineaux	Gary Waggoner
Donald M. Forney*	Dennis Naughton	Dr. David Walker
Dr. Harold Gegel	Neal R. Ontko	Roland Watts
John W. Gloystein	Dr. Nicholas Pagano	Dennis Wisnosky
Henry C. Graham	Larry Parsons	Bill Woody
Alten (Skip) Grandt	Cyril (Sonny) M. Pierce	Carol Yarnall
Dr. Walt Griffith	<b>Dilip Punatar</b>	*Deceased

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### AFRL/RX AWARDED

The Air Force Research Laboratory (AFRL), Materials and Manufacturing Directorate, Wright-Patterson Air Force Base, Ohio, was awarded the Air Force Organizational Excellence Award for exceptionally meritorious service from 1 June 2013 to 31 May 2015. Congratulations to all!

*George F. Schmitt  
Director, International Programs  
AFRL/RXO*

### 2016 ASTM INTERNATIONAL AWARD

More great news! Dr. Andrew Rosenberger has just been named a recipient of the 2016 ASTM International Award of Merit and its accompanying designation as a Fellow of ASTM International.

*George F. Schmitt  
Director, International Programs  
AFRL/RXO*



*We Salute Those Who Have  
Served And Are Currently  
Serving In The Armed Forces.*

*Thank-You*