



**Cathay April 2023**

[www.cathayradio.org](http://www.cathayradio.org)

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**Mission:** The Cathay Amateur Radio Club is basically an active social club of Ham Radio Operators and their spouses. We support local community requests for HAM emergency communications. Several of us are trained in CPR/ First Aid and are involved with community disaster preparedness.

**Monday Night Net Time:** 9 PM Local Time/PST, Repeater: WB6TCS - RX 147.210, TX 147.810, Offset +0.6 MHz, CTCSS/Tone PL100 Hz

Please note: Repeater: N6MNV UHF 442.700 Mhz, Offset +5MHz, CTCSS/Tone PL 173.8 Hz in South San Francisco is cross linked every Monday Night Net at 9 p.m. to WB6TCS 2-meter repeater.

The CARC Monday night net is the best way to find out the latest club news. All check-ins are welcome.

**Message from the President:** George Chong, W6BUR

Hello CARC Members and Friends;

Many thanks to Mr. Denis L. Moore – WB6TCS (SK) & his son: Mr. Robert Moore for the use of their repeater for our CARC Monday Night Net.

I wish to thank our CARC members that set aside their valuable time to participate in our Monday night's nets.

## Silent Key – Denis L. Moore - WB6TCS

With the passing of Denis L. Moore – WB6TCS on December 21, 2022 at the age of 80, the CARC has lost a generous supporter and benefactor of our club. He has generously allowed the CARC to use his repeater that he hand built from scratch and that is very robust and tough as a tank.

### Memorial Service for Denis Moore



Wednesday, March 22, 2023  
11:00 a.m.  
New Life Community Church  
76200 Perry St. Covelo, CA

Friends and neighbors  
please join us  
to celebrate the life of  
Denis Moore.  
Pot luck reception to follow.



Date: 3/17/2023

**Denis L. Moore**  
1942-2022  
**Mendocino County**

Denis Moore was born on March 11, 1942 to Leo and Martha Moore (Haench) in Napa, CA. He spent much of his early years in Napa, then Alameda Counties. Denis and Leo move to Covelo, CA in 1951 after his parents' divorce.

Denis went to school through High School in Covelo. During that time, his father was a PG&E lineman and trouble shooter for the area. Denis work on ranches, at a local gas station and eventually went to work for the US Forest Service as a sawman, firefighter and a fire lookout at Mt. Anthony.

He graduated from Cal Poly San Luis Obispo with a degree in mechanical engineering. This took him to PG&E, where he worked for almost three decades. He left the company as the supervising engineer for the company's Telecommunications Division.

Denis married Katherine Craig of Willows, CA (deceased) and had two sons; Robert and Alan. They raised their family in the Oakland Hills. He remained unmarried after the dissolution of that union. His son; Alan preceded him in death (2016).

Denis was passionate about cars and HAM Radios. He built two Amateur Radio repeaters that are still in operation. One is in the Oakland hills, the other is solar-powered, and is located on the top of Mt. Anthony (Mendocino Country). He also become his area's computer technician. He provided and serviced computers for many of the valley's residences, businesses, and the volunteer fire department.

He also was very active in what was to become the New Life Community Church of Covedo. After the original structure (Covelo Presbyterian) was destroyed in a fire, Denis set out to have the church rebuilt. This meant that he spent many sleepless nights learning about building codes and fighting with the church's insurance company to insure proper compensations were made. That was to be his final project.

Denis began to fight a mystery illness in the spring of 2022. This was ultimately found to be Lymphoma after he entered the hospital for the final time. He died on December 21<sup>st</sup>, 2022. He is survived by his son's family; Robert, Christie, and Glenn, his step-sister Dianne Schwenn, niece and family of Stacy and Galen McMillen, and his long-time companion, Sandy Prager.

There will be a memorial service at the Covelo New Life Community Church, 76200 Perry Street, Covelo, CA 95428 on Wednesday, March 22<sup>nd</sup> at 11 AM. Anyone wishing to make donation in his memory is encourage to give to the church and note that it is for the Denis Moore Memorial Building Fund.

Below are just a few stories about Denis L. Moore - WB6TCS. His kindness touched the lives of many folks and was very well known and respected among the HAM Community. Denis was a man of many talents involving computers, electronics, cars, and more. He will be dearly missed by all that knew him.

Message from CARC member Alon Yu-WA6GTY in regards to Denis Moore – WB6TCS

I haven't seen Denis for years since he last visited the Bay Area. We are old friends when we both worked at PG&E in the 60's. Missed keeping in touch with him ever since he moved to Northern CA near the Oregon border.

My first radio was a used Gonset 2m vhf -AM transceiver which my parents bought me as a high school graduation present in 1959, but Denis helped me tune an old PG&E Link FM radio on one of the earliest 2m FM repeaters: I believe it was in the Berkeley Hills:K6GWE? Denis also helped me with maintaining my 1970 Chevrolet K5 Blazer, which I still have to this very day!

Wishing everyone a great New Year of the Rabbit of good health, happiness, and great QSOs and DX contacts 😊 stay safe and keep well, too!

73, Alon Yu, WA6GTY

Message from CARC member Ed Fong - WB6IQN about Denis L. Moore - WB6TCS and Gary Fernstrom – WA6CNS.

Denis was Gary's supervisor when they both worked at PG&E. They both lived in the Oakland Hills at the time and became best of friends. I believe Gary is going to make the long drive from the Bay Area to attend Denis Moore's memorial in Covelo.

### **Special Announcement Introduction:**

Please refer to the Special Announcements Section: **FARS Club Meeting/Dinner Event** as many of our CARC members are also members of the FARS Club.

### **Technical Article Introduction:**

Many of our older Cathy Amateur Radio Club members will find this health article interesting.

**A New Approach to Combating Osteoarthritis** article is a perfect example of how advances in science are built upon prior scientific discoveries, in this case “Click Chemistry”.

Osteoarthritis is a degenerative joint disease where the cartilage (that protects the ends of the bone joint) breaks down from wear and tear along with other joint tissue changes.

Please go to the **Tech Article Section** for additional details.

### **Final Thoughts**

Many thanks to for the use of Mr. Robert Moore and Mr. Denis L. Moore (SK) – WB6TCS repeater for our CARC Monday Night Net.

I wish to thank our CARC members that set aside their valuable time to participate in our Monday night’s nets.

Stay healthy and keep yourself from catching COVID-19.

**Chat sub s'em to all you CARC members! - George W6BUR, CARC President.**

## Special Announcement

### Special FARS Club Meeting/Dinner Event from Ed Fong - WB6IQN

#### **FARS Winter Banquet April 28<sup>th</sup>, 2023 Early Spark Gap Transmitters**

Prof. Thomas Lee



April 28th, 2023 - 6:00PM

The Blue Pheasant  
22100 Stevens Creek Blvd  
Cupertino, CA 95014  
408-255-3300



#### **Schedule**

6:00 PM	Arrivals and Mixing.
7:00 PM	Dinner is served.
7:30 PM	Introductions, program.
9:00 PM	Raffle and wrap up.

#### **Meal Choices**

Beef	Roast Prime Rib of Beef, au jus	\$54
Fish	Broiled Salmon w/ dill sauce	\$41
Chicken	Breast of Chicken Jersusalem	\$41
Veg	Pasta Primavera	\$41



Raffle of \$800 in prizes, including: (1) Xiegu G90 transceiver, (2) uSDX+ QRP HF transceiver, (3) Radioddity QB25 Quad band VHF/UHF mobile transceiver, (4) ATS-20 receiver, (5) Motorola GP-68 UHF HT.

Use this form to sign-up by mail, or go on-line at [k6ya.org/bqs](http://k6ya.org/bqs) to sign-up. After February 17th, use the on-line sign-up instead of this form. If we receive your sign-up after April 24th, it will be handled as a [late sign-up](#). More information at: [k6ya.org/bq](http://k6ya.org/bq). Mail this completed form with your **check, payable to FARS**, to:

FARS  
PO Box 112551  
Campbell, CA 95011-2551

#### **FARS WINTER BANQUET SIGN UP FORM (April 28, 2023)**

	Name & Call Sign	Meal Choice	Amount
You	_____	_____	_____
Email	_____		
Guest	_____	_____	_____
Guest	_____	_____	_____
Other (eg. Dues)	_____		_____
		<b>Total</b>	_____

## **Public Service Announcements**

### **HAM CRAM / HAM Licensing**

For upcoming HAM Licensing locations please refer to:

<http://www.arrl.org/find-an-amateur-radio-license-exam-session>

### **Auxiliary Communications Service (ACS)**

The Auxiliary Communications Service (ACS) is a unit of trained professionals who supply communications support to the agencies of the City and County of San Francisco, particularly during major events/incidents. ACS goals are the support of gathering and distribution of information necessary to respond to and recover from a disaster.

The ACS Net begins at 1930 hours (7:30 p.m. PT) local time each Thursday evening, on the WA6GG repeater at 442.050 MHz, positive offset, tone 127.3 Hz. The purpose of this net is to practice Net Control skills, practice checking in with deployment status in a formal net, and to share information regarding upcoming ACS events. Guests are welcome to check in. ACS members perform Net Control duty on a regular basis. On the second Thursday of each month, the net is conducted in simplex mode on the output frequency of the WA6GG repeater, 442.050 MHz no offset, tone 127.3 Hz.

ACS holds its General Meetings on the third Tuesday of each month from 1900 hours to 2100 hours local time. Currently meetings are exclusively conducted over Zoom during the COVID-19 pandemic, ACS looks forward to meeting in person again as soon as possible.

Upcoming meeting dates in 2023 are:

- TBD

Location of in person future ACS meetings is yet to be determined as the regular location is under reconstruction until further notice. All interested persons are welcome to attend. For further information, contact Corey Siegel KJ6LDJ <kj6ldj@gmail.com>.

For more information, please attend an ACS meeting, check in on the ACS radio net, or call 415-558-2717.

**Free Disaster Preparedness Classes In San Francisco – NERT Taught by San Francisco Fire Department (SFFD).**

<http://sf-fire.org/calendar-special-events>

**TBD**

**+ Recertifications - Coming Soon!**

**Pre-register here!**

<https://www.eventbrite.com/e/are-you-a-nert-graduate-looking-to-recertify-pre-register-here-tickets-228380330717?aff=odcleoeventsincollection>

**This is not for a specific date or location.**

San Francisco Fire Department NERT is collecting information from NERT Graduates to help us plan for the new year. By signing up here, you will receive priority notification about upcoming recertification opportunities. This is for any NERT graduate, regardless of when you graduated or whether your NERT certification has expired. Thank you so much for your commitment to NERT and for providing us with information about when you last trained, etc.

**Sign Up For Training Classes, this is not for a specific date or location.**

San Francisco Fire Department is collecting contact details from prospective students so we can let you know when classes are available. We will email you when classes become available. We plan on holding multiple trainings for new NERTs in 2023 and the information you provide will help us plan. Thank you!

<https://www.eventbrite.com/e/never-taken-nert-before-let-us-know-you-are-interested-in-2022-trainings-tickets-125825993935?aff=odcleoeventsincollection>

**\*SFFD DOT** is the Fire Department Division of Training. All participants walking, biking or driving **enter through the driveway gate on 19th St.** between Folsom and Shotwell. Parking is allowed along the back toward the cinderblock wall.

Visit [www.sfgov.org/sffdnert](http://www.sfgov.org/sffdnert) to learn more about the training, other locations, and register on line. Upcoming Special NERT Events.

**San Francisco Police Department: Auxiliary Law Enforcement Response Team (ALERT)**



The Auxiliary Law Enforcement Response Team (ALERT) is a citizen disaster preparedness program designed. The ALERT program is for volunteers 16 years of age or older, who live, work, or attend high school in San Francisco.

Graduates of the San Francisco Police Activities League (P.A.L) Law Enforcement Cadet Academy are also eligible to join.

ALERT volunteers will no longer need to complete the Fire Department's Neighborhood Emergency Response Team (NERT) ([www.sfgov.org/sfnert](http://www.sfgov.org/sfnert)) training and then graduate into two 8 hour Police Department course specifically designed for ALERT team members.

ALERT members will work closely with full-time and/or Reserve Police Officers in the event they are deployed after a disaster. The Basic ALERT volunteer will have no law enforcement powers other than those available to all citizens.

### **SFPD ALERT Training (New Members)**

The next SFPD ALERT training class has been scheduled for: TBD

\* Class date indicated are only for new members

IMPORTANT- All participants must complete the background interview process in order to be eligible to attend the ALERT training class.

Eligible ALERT participants may register for a training class by contacting the ALERT Program Coordinator, Marina Chacon at [sfpdalert@sfgov.org](mailto:sfpdalert@sfgov.org), or by telephone at 415-401-4615.

### **SFPD ALERT Practice/Training Drill**

All active/trained ALERT members are asked to join us for our next training drill, via scheduled for on

TBD

For more information on the San Francisco Police Department ALERT Program, email us at [sfpdalert@sfgov.org](mailto:sfpdalert@sfgov.org), or call Lt. Marina Chacon (SFPD Ret.), SFPD ALERT Program Coordinator, at (415) 401-4615.

For additional information on the web please refer to:

<https://sfgov.org/policecommission/alert>

## Tech Article:



### A New Approach to Combating Osteoarthritis

Lesley Chow and partners at St. Luke's University Health Network aim to provide early stage intervention for degenerative joint disease.

<https://www2.lehigh.edu/news/a-new-approach-to-combating-osteoarthritis>



Nearly 70% of adults over the age of 65 are affected by osteoarthritis, a degenerative joint disease marked by pain and reduced joint function. Early intervention is key to maintaining mobility and improving quality of life, says [Lesley Chow](#), associate professor of bioengineering and materials science and engineering. But currently, early stage interventions are not effective at regenerating cartilage and delaying or preventing the need for joint replacements.

By taking a biomaterials-based approach, Chow hopes to change this.

Chow and Dr. Gregory Carolan at St. Luke's University Health Network (SLUHN) have received a National Institutes of Health (NIH) grant to engineer biomaterials that promote cartilage tissue regeneration to prevent the onset of osteoarthritis.

Building on previous [research](#), Chow's work involves a mix of 3D printing and biomaterials design to develop scaffolds for tissue repair. With this work, the researchers aim to make a scaffold that's simple enough to implant using tools and procedures that are currently used by orthopedic surgeons.

Cartilage cannot regenerate on its own, explains Chow, and medical intervention is necessary to mimic the same properties as native tissue.

The scaffolds will be designed with specialized chemistries that enable the spatial and temporal delivery of bioactive peptides designed to mimic growth factors, or proteins that stimulate cell behavior. The team hopes that these scaffolds will promote cartilage regeneration to restore joint function.

"This project takes advantage of click chemistry, which allows us to attach bioactive molecules to our scaffolds at different times and in specific locations in the presence of cells.

We can therefore simulate dynamic changes that the cells would have experienced during development to direct native-like cartilage formation," explains Chow, noting that chemists Carolyn Bertozzi, Morten Meldal, and K. Barry Sharpless were awarded the 2022 Nobel Prize in Chemistry for developing click chemistry and bioorthogonal chemistry. "We are very thankful to these pioneers who paved the way for us to design new and exciting biomaterials."

Partners in the project include [Dr. Gregory Carolan](#), section chief of orthopedic sports medicine and shoulder surgery at SLUHN, Félix Gerardo Ortega Oviedo, Ph.D. student in the [Chow Lab](#), and student Fenet Demissie '24.

"Effective treatment options for articular cartilage injuries have been a major topic of research and innovation in orthopedic surgery for decades. Despite this focus, the treatment options currently available are unable to reproduce the pre-injury state of the damaged articular cartilage and as such, surgeons are not able to provide our patients with the outcomes that they wish to achieve," says Carolan. "This project uses a novel approach of 3D printing technology to manage these challenging injuries."

### **Impacting Medicine Through Community Partnership**

The partnership with SLUHN and Carolan's surgical perspective is instrumental, says Chow.

Chow credits the late Dr. William De Long from SLUHN for building the relationship between both institutions.

“This work, and the continued partnership with Dr. Carolan and St. Luke’s, is largely due to Bill and his commitment to advancing medicine and impacting our community,” says Chow. “We would not have gotten to this point in our research without his involvement, encouragement and support.”

The research team hopes this development will lead to breakthroughs in early-stage interventions, improving the quality of life early on for those affected by osteoarthritis.

“This project has the potential to completely change how we address and treat these debilitating injuries and may finally provide surgeons the ability to truly ‘repair’ articular cartilage,” Carolan says. “This would be a major advancement in patient care and would be applicable to millions of patients with these injuries in the United States of America alone.”

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### **Additional details about “Click” Chemistry and Biorthogonal Chemistry**

<https://www.nobelprize.org/uploads/2022/10/press-chemistryprize2022-2.pdf>

October 5, 2022

## **The Nobel Prize in Chemistry 2022**

The Royal Swedish Academy of Sciences has decided to award the Nobel Prize in Chemistry 2022 to

**Carolyn R. Bertozzi**

Stanford University, CA, USA  
Howard Hughes Medical Institute, USA

**Morten Meldal**

University of Copenhagen, Denmark

**K. Barry Sharpless**

Scripps Research, La Jolla, CA, USA

*“for the development of click chemistry and bioorthogonal chemistry”*

## It just says click – and the molecules are coupled together

The Nobel Prize in Chemistry 2022 is about making difficult processes easier. Barry Sharpless and Morten Meldal have laid the foundation for a functional form of chemistry – *click chemistry* – in which molecular building blocks snap together quickly and efficiently. Carolyn Bertozzi has taken click chemistry to a new dimension and started utilising it in living organisms.

Chemists have long been driven by the desire to build increasingly complicated molecules. In pharmaceutical research, this has often involved artificially recreating natural molecules with medicinal properties. This has led to many admirable molecular constructions, but these are generally time consuming and very expensive to produce.

“This year’s Prize in Chemistry deals with not overcomplicating matters, instead working with what is easy and simple. Functional molecules can be built even by taking a straightforward route,” says Johan Åqvist, Chair of the Nobel Committee for Chemistry.

**Barry Sharpless** – who is now being awarded his second Nobel Prize in Chemistry – started the ball rolling. Around the year 2000, he coined the concept of click chemistry, which is a form of simple and reliable chemistry, where reactions occur quickly and unwanted by-products are avoided.

Shortly afterwards, **Morten Meldal** and Barry Sharpless – independently of each other – presented what is now

the crown jewel of click chemistry: *the copper catalysed azide-alkyne cycloaddition*. This is an elegant and efficient chemical reaction that is now in widespread use. Among many other uses, it is utilised in the development of pharmaceuticals, for mapping DNA and creating materials that are more fit for purpose.

**Carolyn Bertozzi** took click chemistry to a new level. To map important but elusive biomolecules on the surface of cells – glycans – she developed click reactions that work inside living organisms. Her *bioorthogonal reactions* take place without disrupting the normal chemistry of the cell.

These reactions are now used globally to explore cells and track biological processes. Using bioorthogonal reactions, researchers have improved the targeting of cancer pharmaceuticals, which are now being tested in clinical trials.

Click chemistry and bioorthogonal reactions have taken chemistry into the era of functionalism. This is bringing the greatest benefit to humankind.

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**Carolyn R. Bertozzi**, born 1966 in USA. PhD 1993 from UC Berkeley, CA, USA. Anne T. and Robert M. Bass Professor at Stanford University, CA, USA and Investigator, Howard Hughes Medical Institute.

**Morten Meldal**, born 1954 in Denmark. PhD 1986 from Technical University of Denmark, Lyngby, Denmark. Professor at University of Copenhagen, Denmark.

**K. Barry Sharpless**, born 1941 in Philadelphia, PA, USA. PhD 1968 from Stanford University, CA, USA. W. M. Keck Professor at Scripps Research, La Jolla, CA, USA.

**Prize amount:** 10 million Swedish kronor, to be shared equally between the Laureates.

**Further information:** [www.kva.se](http://www.kva.se) and [www.nobelprize.org](http://www.nobelprize.org)

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The Royal Swedish Academy of Sciences, founded in 1739, is an independent organisation whose overall objective is to promote the sciences and strengthen their influence in society. The Academy takes special responsibility for the natural sciences and mathematics, but endeavours to promote the exchange of ideas between various disciplines.

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