



American Chemical Society Wichita Section

April, 2019 Newsletter
Stephen Donnelly, Editor

Section Meeting & Awards Banquet Monday, 29 April Bethel College North Newton, KS

Meal: 6:00 p.m.
Awards Presentation: 7:00 p.m.
Speakers Presentation: 7:30 p.m.

We will meet for dinner in the Mantz Library on the campus of Bethel College in North Newton. The Meal will include grilled chicken and pasta with choice of Mushroom Marsala or Alfredo sauce, California blend vegetables, a mixed green salad. The desert will be a mixed berry compote with whip topping.. The cost of the meal is \$15, \$7 for students. There is no cost for student award winners, and members receiving service awards. We ask those interested in joining us for dinner to **RSVP to Kathryn Layman via email (klayman@bethelks.edu) by 5:00 PM, Monday, 22 April.** The presentation will be given in the same room starting at approximately 7:30 PM.

A map of the Bethel campus can be found at <https://www.bethelks.edu/> - select "Where We Are" under the "About" tab. A google map and a downloadable campus map are available there. The Mantz Library is Item 21 on the downloadable map. Convenient parking can be found in the 29th Street lot south of the football stadium (Joe W. Goering Field)

Speaker: *Dr. Gary Branum, PhD*
Department of Chemistry
Friends University, Wichita, KS

Speaker Bio:

Dr. Gary D. Branum has been with Friends University since 2006. He teaches advanced chemistry courses and the occasional physics course. He also teaches forensic science, based on his 30-plus years of experience as a forensic toxicologist. He has testified as an expert witness in 11 states as well as in Hong Kong; Chennai; Mumbai; Stockholm; and Newmarket, U.K. In addition to his duties at Friends University, he continues to serve as a professional consultant with International Forensic Science Consultants (2000-present), specializing in all aspects of forensic and clinical laboratory design, accreditation and regulatory compliance, as well as providing expert consultation to attorneys on all aspects of forensic toxicology.

*** Student and Service Awards ***

In addition to our speaker's presentation, we will be presenting a number of awards at the April meeting including those for outstanding freshman, junior, and senior chemistry majors from the colleges within the Wichita Section. In addition, we will be presenting service awards to some of the members or our section.

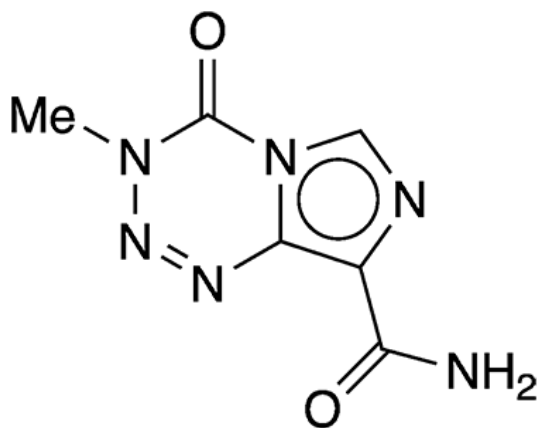
ACS Midwest Regional Meeting, 2019

The Wichita Local Section will be hosting the 2019 Midwest Regional Meeting on October 16th to the 19th. We are in the planning phase and will certainly welcome anyone who may wish to volunteer to help make this event a success. We will also be looking for vendors or anyone else who would like to rent an exposition booth during the event. Please contact either Dr. Paul Rillema or Dr. Arvin Cruz, who will be co-chairing this event. Their contact information is listed below.

High School Science Teacher Outreach

The Wichita Section is making an effort to improve our connection with high school science teachers at schools within the section. If you know a science teacher who might be interested we encourage you to invite them to our next meeting, and, as noted above the section will cover the cost of the meal. For additional information about this outreach effort contact Norman Schmidt at normans@tabor.edu.

Molecule of the Week



Temozolomide (TMZ) is a chemotherapy drug often used to treat glioblastoma, the most aggressive form of cancer that begins in the brain. This cancer is extremely difficult to treat because it usually recurs even after extensive surgery, chemotherapy, and radiation.

TMZ was developed at Aston University (Birmingham, UK) more than 20 years ago. In 1999, the US Food and Drug Administration granted approval to Merck to market it under the trade name Temodar for treating glioblastoma and refractory anaplastic astrocytoma. It is available in capsule and injectable forms.

TMZ's mode of action is alkylation, which causes serious side effects such as reduction in blood cells, weakening of the immune system, and secondary cancers. Only a small portion of administered TMZ enters the brain, making most of it free to cause problems in other parts of the body.

Now, Paul J. Hergenrother and colleagues at the University of Illinois (Urbana-Champaign) report that a modification to TMZ's structure makes it easier for the drug to penetrate the

blood-brain barrier. When the team replaced the molecule's amide group with a methyl ketone group, the percentage of the drug that entered the central nervous system in mice increased from 8% to 69%

In a mouse model of glioblastoma, treatment with the modified drug (K-TMZ) increased survival indefinitely. The researchers' next step is to test K-TMZ on larger glioblastoma-affected animals.

Wichita Section Web Site:

<http://wichita.sites.acs.org/>

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