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One of the guiding principles of the AACT is inter-organizational collaboration and cooperation. It is a long-held and firm belief of the AACT Board of Trustees that we work for the good of the specialty of clinical toxicology, in all its varied forms.

Two recent examples of this collaborative approach are the *Journal Clinical Toxicology* and our partner organizations in other areas of the world.

This year, with the active support of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT), the American Association of Poison Control Centers (AAPCC) has become an official sponsoring organization of *Clinical Toxicology*. The journal, the AACT, and the EAPCCT welcome the AAPCC and look forward to a long and mutually beneficial relationship. Keep an eye out for AAPCC's Annual Report (TESS) coming out in issue six of the journal!

Two of our counterpart organizations are the EAPCCT and the Asian Pacific Association of Medical Toxicologists (APAMT).

Many members of the AACT may not appreciate the close collegial relationship between the AACT and the EAPCCT. This relationship started in the late 1980s. The EAPCCT became a co-sponsor of *Clinical Toxicology* in 1991 and the original position papers on GI decontamination were published in 1997. It has been a valuable relationship, with benefits to

both organizations, which continue to this day. Each year, two members of the AACT Executive sit on the EAPCCT Scientific Committee. This committee sets the program for the EAPCCT's annual International Congress. This year, Donna Seger and I spent two days in London helping to select the abstracts to be presented at this year's Congress. With a large number of abstracts coming from many different countries, it is not an easy task! There truly are more things under the sun than anyone can imagine!!

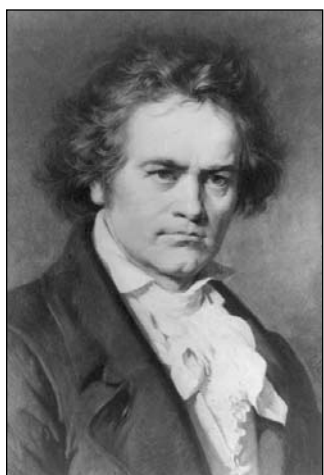
The APAMT is a small but growing organization that focuses on clinical toxicology in Asia and the eastern Pacific Rim. The AACT and the EAPCCT are working with the APAMT to provide their members with memberships to our organizations and access to *Clinical Toxicology*. We have every expectation that the relationship with APAMT will grow and develop over the next few years.

Spring is coming and that means the XXVI International Congress of the European Association of Poisons Centres and Clinical Toxicologists. This year (April 19-22) the meeting will be held in Prague, Czech Republic. There will be more about this meeting in the next issue of AACT*ion*.

After Spring and Summer comes Fall and the North American Congress of Clinical Toxicology (October 4-9). This year's meeting will be in San Francisco at the Hyatt Regency Embarcadero. In addition to the usual suspects, we will have a keynote address ("The Early Toxicology of Physostigmine: a Tale of Beans, Great Men and Egos") presented by Dr. Alex Proudfoot from Edinburgh, Scotland. Dr. Proudfoot is one of the true giants of clinical toxicology and we are pleased and honored that he will attend.

Lead-wig von Beethoven

Timothy B. Erickson, MD, FACMT, FAACT, FACEP



**“Friends applaud,
the Comedy is over.”**

Ludwig von Beethoven, Last words

Born December 16th, 1770 in Bonn Germany, Ludovicus (Ludwig) Van Beethoven is certainly one of the most revered composers of all time (Figure 1). He was recognized as a genius of his own time, and the first composer to be placed at a celebrity status in the aristocratic and public eye. Upon his death in 1827, thousands came to pay their respects.

Beethoven is most well known for his fifth and ninth symphonies. Besides his symphonies, he created five piano concertos, a violin concerto, several overtures, 16 string quartets, 10 violin sonatas, and 35 piano sonatas. He also created an opera “Fidelio”, and the religious composition, Missa Solemnis. On December 1, 2005, a long-lost manuscript of composer Ludwig van Beethoven was auctioned by Sotheby’s, and sold for 2 million dollars. The ninth symphony had sold for 3.5 million dollars in 2003.

Recently, in December, 2005 researchers at the Argonne Laboratory outside of Chicago, Illinois confirmed that chronic lead poisoning may have caused years of illness in Beethoven and may have contributed to his death at age 57 years. Project Director William Walsh, PhD claimed that concentrations of lead in a fragment of skull from the composer contained 100 times the lead level compared to present day controls. The bone fragment was also compared to another subject from the same time period, further documenting abnormally high levels. (Figure 2) It is well documented that Beethoven saw several physicians in his later years in search of a cure of his chronic ailments including indigestion, abdominal pain, dramatic mood swings, irritability, rage, and depression. It is less likely that his permanent loss of hearing from his late 20s was directly attributed to lead poisoning.

In 2000, Walsh had performed a similar analysis on Beethoven’s hair documenting high levels of lead at 60 ppm. “Independent analyses of Beethoven’s hair showed that he had plumbism or lead poisoning which could explain his lifelong illnesses. It would also have had impact on his personality and could have contributed to his death.” DNA testing confirmed the skull bone and hair was taken from the same source. The hair had been taken from the body one day after his death. The bone fragment belonged to Paul Kaufman whose great-great uncle was the Austrian doctor who kept the fragments after the composer’s body was exhumed.

The analysis at Argonne Laboratory was performed by a 500 million dollar Advanced Proton Source system that sends sub-

atomic particles around a circular half mile track at velocities up to 99.999 percent of the speed of light. Argonne, the United States’ first national laboratory, conducts basic and applied scientific research including high-energy physics, climatology, and biotechnology.

Possible sources of Beethoven’s lead poisoning include the spa mineral water he frequently drank and swam in during his later years, or the heavy lead content in the wine and drinking chalices of the day. Other theories include the leaded pencils he used for composing his pieces, and specific medicinal remedies of the day. Surprisingly, no demonstrable mercury levels were found. In Beethoven’s time, mercury was a widely accepted cure for syphilis. Also, no cadmium was discovered, which could have also accounted for several of his chronic ailments.

As I write this excerpt while listening to his Piano Concerto #5 “Emperor” Adagio un poco moto, it is December 16th, Beethoven’s birthday. Although poisoning certainly tormented him, did it actually contribute to his reclusive nature, resulting in hours of composition, drive, and unaccepting failure? In other words, if it were not for the demon lead, we may have never celebrated the ambience of Beethoven today. On the other hand, just imagine what he could have accomplished if the poison had not crippled him.

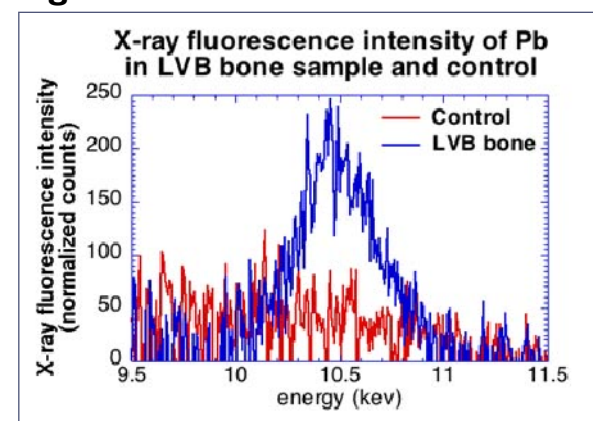
And finally, an excerpt from *Jay Leno’s monologue, NBC Tonight Show, Monday, Dec. 12, 2005*

“Here’s an interesting story...the Energy Department’s Argonne National Lab has determined that test results now show that Beethoven died of lead poisoning.

“Now when did he die—1827? Boy, you thought you had to wait a long time for your lab results. What are you talking about? Apparently, Beethoven was one of the first HMO members.

“As they said...lead poisoning. So, hopefully, the Beethoven family now finally has some closure. They can all rest in peace.”

Figure 1



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Reminder

NACCT Abstracts for the 2006 Meeting in San Francisco are due April 1, 2006 at 11:59 EST.

For additional information, please visit our website at www.clintox.org.

Dr. McGuigan was notified that one of the AACT's members, Dr. Mohammad Abdollahi, received the Laureate of Ibrahim Award of the Islamic-World Academy of Sciences in the field of Toxicology/Pharmacology in the year 2005. This award recognized his work on development of this science at the international level.

Congratulations Dr. Abdollahi!