

# House Call

A publication of the Medical Heritage Center at The Ohio State University

## FROM THE MHC ARCHIVES:



Brain Model, wooden, c.1800s

## THE MHC MISSION:

The Medical Heritage Center preserves, promotes, teaches and celebrates the health care legacy of central Ohio as the essential foundation from which the future of the health sciences is born.

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## Note from the Curator

*By Judith A. Wiener, MA, MLIS*

The Medical Heritage Center has certainly had a busy year so far! In addition to our usual spring lectures, tours, and exhibits, this spring we also hosted the 2019 meetings of the Archivists and Librarians in the History of the Health Sciences and the Medical Museums Association at the OSU Medical Center. It was two days filled with interesting conversations, academic papers, and posters about the field of medical librarianship, special collections, and museums. MHC Collections Curator Kristin Rodgers, MHC student Anthony Bowersock, and I also volunteered for the Local Arrangements Committee of the American Association for the History of Medicine, which brought approximately 400 historians working internationally in the field of medical history to Columbus, Ohio. Many of the historians visiting also took time to search our collections to use our resources in their research and we were happy to highlight the MHC to the world!

*Continued on page 2*



Rodgers, Bowersock, Wiener  
Staffing the AAHM conference registration table



## Note from the Curator *continued*

Our next half of the year is just as productive and we are proud to announce our 2019 Fall Lecture series:

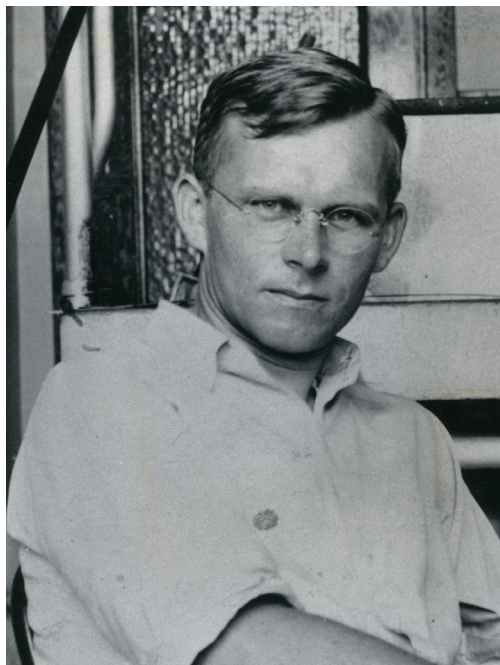
- Third Annual Humanism in Medicine Last Lecture Series featuring Dr. E. Christopher Ellison, Academy Professor and Robert M. Zollinger Professor Emeritus, August 29, 2019, 4pm, Ross Heart Hospital Auditorium (452 West 10th Ave).
- 16th John C. Burnham Lecture featuring Dr. Scott Podolsky, Professor of Global Science and Social Medicine at Harvard University, October 17, 2019, 4pm, OSU Faculty Club (181 Oval Drive South).

More information about these events can also be found on our website and through our mailing list. We hope to see you!

Finally, we are also busy preparing for The Ohio State University's Sesquicentennial in 2020. We are excited about creating a year full of memorable events, lectures, and collaborations. Please visit the University's website for more details (<https://150.osu.edu/>) about the university-wide celebration and look to future issues of House Call for more details from the MHC!

## Professor Emil Bozler: Discoveries in Muscle Physiology

*By Jack A. Rall, PhD*



Emil Bozler, 1936

Emil Bozler (1901 – 1995), born in Germany, came to the department of physiology at The Ohio State University in 1936 as an assistant professor and remained affiliated with the department after his retirement in 1971 as an emeritus professor until his death in 1995. Bozler was a remarkable scholar whose publications span over sixty years from 1925 to 1990. He was known world-wide for his research contributions to our understanding of the function of smooth, cardiac and skeletal muscle.

He probably was best known for his work on smooth muscle. It has been said (Marshall, 1974) that “the foundations of visceral smooth muscle physiology were established by the classic experiments of Emil Bozler from 1938 to 1948.” Bozler established a classification of smooth muscles. He grouped smooth muscles into two broad categories based on electrophysiology. Visceral smooth muscle which exhibited automaticity and syncytial (single unit) behavior and multi-unit smooth muscle which was activated by motor nerves and the electrical activity did not spread to adjacent fibers.

In 1943 Bozler discovered the pacemaker prepotential in cardiac muscle. Using extracellular electrodes, he reported a wave of slowly rising negativity that preceded the discharge of a propagated action potential in the sinus node of the heart in various animals and called the localized, non-propagated response, the ‘pacemaker prepotential’.

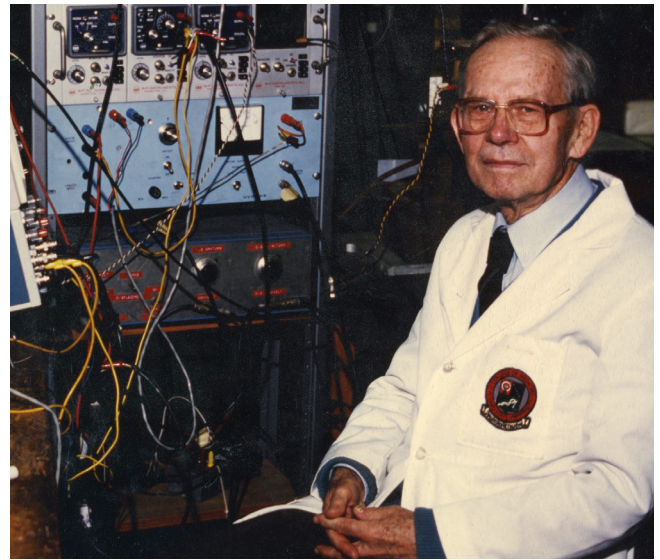


With regard to skeletal muscle, in 1954 Bozler was the first to show that calcium caused muscle contraction and the removal of calcium caused muscle relaxation. These results stimulated Setsuro Ebashi in Japan to discover the function of the sarcoplasmic reticulum as an intracellular calcium store and to discover the calcium binding protein troponin. Ebashi (1975) stated that Bozler's "simple and elegant experiments have clearly revealed ...the importance of Ca ions as the triggering factor of contraction. In this respect, he should also be considered as one of the pioneers of the studies on the regulatory mechanism" in muscle.

All of Bozler's major discoveries were made as a faculty member in the department of physiology in the College of Medicine at The Ohio State University. After his retirement, Bozler continued to do research in the department of physiology full-time and his last research paper appeared in 1990, nearly twenty years after his formal retirement in 1971.

According to Nobel laureate Albert Szent-Gyorgyi (1975), Bozler "was one of the few people who seemed to work always on very fundamental problems...He always struck me with imagination and thoroughness. He also always impressed me with his great sincerity. Scientific research in our days is not driven always by the sincere desire to understand nature. This was always different with Professor Emil Bozler. All his papers inspired an intense desire of understanding nature."

Emil Bozler was liked and admired by all who knew him. He was an inspiration to his colleagues. He was a modest and reserved individual who did not champion his own remarkable scientific accomplishments. In a somewhat reversal of expectations, Bozler's national and international reputation was far greater than his local reputation. But toward the end of his career, the local recognition that he deserved came his way. In 1975 Bozler received an honorary Doctor of Science degree from The Ohio State University. In 1989 a major international symposium was held in his honor at The Ohio State University and in the same year, the North Wing of Hamilton Hall, where Bozler worked for more than 50 years, was named the "Emil Bozler Wing".



Emil Bozler, 1989

## References

1. Marshall, J. In: Medical Physiology (13th edition), 1974.
2. Ebashi, S. From a letter written in 1975 in support of Bozler's nomination for an honorary Doctor of Science degree from The Ohio State University.
3. Szent-Gyorgyi, A. From a letter written in 1975 in support of Bozler's nomination for an honorary Doctor of Science degree from The Ohio State University.





## Collection Highlight: Anthony M. Bowersock Papers



Anthony Bowersock, 2019

As a result of centennial celebrations in 2014 for the Colleges of Dentistry, Medicine, Nursing, and Optometry, the Medical Heritage Center identified a need to collect information about what it is like to be a professional student as individuals' progress through their respective curriculums. To this end, student volunteers were sought, and they are creating digital time capsules to document their educational experiences. While the time capsules are a unique project, they do not fully capture the life of a modern professional student. The MHC sought a professional student to fully document one's experience by creating an archival collection. Anthony M. Bowersock was selected as that student.

Bowersock began his undergraduate education at The Ohio State University at Lima in August 2003. In 2006 he withdrew from OSU Lima and moved to Georgia to assist his family during his mother's fight with breast cancer. Late in 2010 he returned to Ohio to finish his degree from Ohio State and, in 2015, graduated from The Ohio State University with a Bachelor's of Science in Biology with Honors Distinction.

During the 2016-2017 academic year, he participated in the MEDPATH Program at Ohio State and matriculated into The OSU College of Medicine's Class of 2021. He is currently a third year medical student pursuing a combined MD/MPH degree with a specialization in Health Behavior and Health Promotion. Subsequently, Bowersock is expected to receive his MPH in 2021 and his MD in 2023.

In addition to his education, Bowersock serves on the Medical Heritage Center's Advisory Committee and Legacy Subcommittee; The Ohio State University College of Medicine Last Lecture Planning Group; The Ohio State University College of Medicine Humanism in Medicine Executive Board; and, has been an advisor for the Mortar Board National College Senior Honor Society at The Ohio State University since March 2017. He has been an employee of the Medical Heritage Center since 2015 and assists with collection processing.

The Anthony M. Bowersock Papers currently contain 6 linear feet of materials primarily related to his education.



## Recent Donations (April 1, 2018 – June 30, 2019)

### Material

Mr. David Guy Baker and Mr. Richard Shoemaker Baker: in memory of Abram Jackson Shoemaker, MD (Starling-Ohio Medical College commencement program and photograph, 1909) • Dr. Linda Bernhard (bedpan and James Burt materials) • Mrs. Margaret Borton-Tazelaar (OSU nursing uniforms) • Ms. Kim Brown (books) • Dr. Bob and Mrs. Leslie Buerki (journals) • Dr. Harry Burger (dental fabricating kit) • Dr. Jeanette K. Chambers (books and archival materials) • Dr. William Chinn (books and artifact) • Dr. Ronald Coen (books and artifacts) • Ms. Deborah Coleman (books) • Ms. Nancy Donaldson: in memory of Whitney Hugh Missildine, MD (materials about Dr. Missildine) • Dr. Roy Donnerberg (books) • Ms. Ann Elliot (additions to Wooley Papers) • Ms. Jane Federer (additions to the OSUMC Service Board Records) • Ms. Barbara Groff: in memory of Dr. John E. Groff (books) • Mr. William Huffman: in memory of Carol Lemley (archival materials about Lemley) • Dr. Tearle Meyer (books and artifacts) • Ms. Kathleen Morris (book) • Dr. Robert D. Newcomb (books) • OSU College of Optometry (centennial time capsule) • Dr. Steven Passoa (artifacts) • Ms. June Radcliff (books, nursing cape and cap, archival materials) • Mrs. Carol Robinson (books and Sloan's liniment) • Mr. Ron Shaul (additions to the OSUMC Brochures Collection) • Mrs. Ann Simons (books) • Mr. Clarence Stolte: in memory of Ruth J. Snider Stolte (Columbus Public Health nurse's uniform) • Ms. Pamela Turrell: in memory of Dr. Robert Turrell (dental artifacts) • Ms. Elaine Trump (books) • Dr. Chris Wehr (medical and dental artifacts) • Mr. Steve Wilson (materials about John R. Wilson)

### Financial

Mr. Paul and Dr. Mary Ann Burnam (in memory of Dr. John C. Burnham) • Ms. Ruth Bope Dangel • Ms. Maryse Dawson • Dr. Evan W. Dixon • Mrs. Kathleen Faulstich • Dr. Mary Beth Fontana • Mrs. Debbie Freece (in honor of the MHC Friends of Nursing History Committee) • Dr. John and Mrs. Anne Hohmann • Dr. Marium Husain • Ms. Marilyn Johnson • Dr. Andrew Korsak • Ms. Karen Lane • Dr. Teresa Long and Mr. Tom Denune • Ms. Frances McNew • Dr. Charles Meckstroth • Dr. Bruce Meyer • Ms. Sally W. Morgan • Dr. Krzysztof Mrozek • Drs. George and Ruth Paulson (in memory of Mrs. Helen Tetirick and Dr. Albert Van Fossen) • Mrs. Kathryn Peppe • Dr. Martin Post • Col. Kevin Spillers and Ms. Lucia Wooley • Mr. Laurence and Dr. Linda Stone (in honor of Drs. Christina and Kevin Kelly, and in memory of Ms. Karen Hartker) • Dr. Manuel and Mrs. Madeline Tzagournis • Dr. Barbara Zollinger Sweney • Mr. Michael and Mrs. Judith Wiener • Dr. Stephen Wilson • Mrs. Mary Lucia Wooley

For information on how to make a material or financial donation to the MHC, please contact Judith Wiener at [judith.wiener@osumc.edu](mailto:judith.wiener@osumc.edu) or visit our website at [go.osu.edu/mhc](http://go.osu.edu/mhc)



The Ohio State University  
Medical Heritage Center  
376 West 10<sup>th</sup> Avenue  
Columbus Ohio 43210

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For subscription information contact

Judith Wiener:

*email:* [judith.wiener@osumc.edu](mailto:judith.wiener@osumc.edu)

*telephone:* 614.292.9273

*fax:* 614.292.9919

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Starling Medical College/St. Francis Hospital  
First combined medical school and teaching hospital in the United States, 1848



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