

## FACULTY PROFILE:

### Ann Zumwalt, PhD, Anatomist and Educator



Dr. Ann Zumwalt conducts an anatomy class.

**BENJAMIN FRANKLIN SAID,** “Tell me and I forget. Teach me and I remember. Involve me and I learn.”

Ann Zumwalt would agree.

Assistant professor of anatomy and neurobiology and a BUSM faculty member since 2007, Zumwalt is a teacher to the core whose research focuses on the neurobiology of education. She is course director for gross anatomy and also teaches the subject to medical, doctoral, and master’s degree students.

“The theme of my life has been teaching, and it is the driving force for what I have done,” says Zumwalt. “Along the path to becoming a teacher of anatomy, I learned it’s not just about teaching the science; it’s about teaching students the humanity of the work we do in dissecting the human body to understand it.”

She describes anatomy class as a rite of passage for students where they learn about life and death—and themselves. She guides

them to walk the line between learning from the bodies they are dissecting and remembering the humanity of the person who donated the amazing gift of their body. “I think it is an important part of my job to usher the students through this process. This is true of all anatomists at BUSM, and I consider myself lucky to teach a subject that has a human side to it as well as being an interesting science.”

To bring humanity to her class and guide students through the rite of passage that is gross anatomy, she openly discusses the complexity of the process, encouraging students to communicate their own feelings and thoughts. She describes the body donation program and how donors specifically choose BUSM because they want to help medical students there become excellent physicians and scientists. “I think that knowledge is important to helping students feel comfortable about what they are about to do,”

she says. “We do an exercise in which they draw out their feelings about their anticipation of doing human dissection. I then show them results of this exercise from previous classes. What becomes apparent is the same themes are repeated over and over again: Questioning whether they can handle it, thinking about the human person and the journey they took to get there, and paralleling their own journey to becoming a doctor to the journey of donor.”

Zumwalt earned her doctorate in 2005 from the Center for Functional Anatomy and Evolution at The Johns Hopkins University School of Medicine, where her research demonstrated that endurance exercise does not affect the surface morphology of skeletal muscle attachments. She subsequently joined the Animal Locomotion Laboratory in the Department of Biological Anthropology and Anatomy at Duke University, where she

investigated the effects of hypermuscularity on locomotor patterns and bone morphology in rodents. She also collaborated on various research and educational projects with clinicians in radiation oncology, obstetrics and gynecology, and neurology.

She joined BUSM because of its emphasis on teaching. “Many research institutions don’t tend to value educators, but at BUSM not only the Anatomy and Neurobiology Department, but the School itself, values educators. My department teaches the core subjects of gross anatomy, neuroscience, and histology, so a majority of our members are educators as well as researchers. Also, I work with other course directors and faculty from other departments who are extremely dedicated to teaching. This is a wonderful place to be.”

Zumwalt also instructs a course for graduate students on how to become an effective educator of biomedical sciences, explicating the theory and practice of teaching. She mentors master’s degree and doctoral students in teaching anatomy and develops collaborations with other departments so students can demonstrate their knowledge through pedagogy.

“What makes Dr. Zumwalt such an outstanding educator is her commitment to the education of her students, as well as her profound interest and dedication to her students themselves,” says Jarrett Rushmore, PhD, assistant professor of anatomy and neurobiology. “She is a consummate educator who thinks deeply and carefully about how to convey complex concepts and thoughts. She brings to bear a high level of attention to detail coupled with creativity, inspiration, and enthusiasm. Dr. Zumwalt is a tireless mentor and advocate for her students; the graduate students she has mentored have emerged from her tutelage as better writers, educators, and scientists, and she has fostered an environment among the medical students that is supportive and encouraging while still being intellectually challenging. This balance between being creative as well as precise and creating a supportive yet challenging academic environment is something for which all

“She brings to bear a high level of attention to detail coupled with creativity, inspiration, and enthusiasm.”

—Jarrett Rushmore, PhD

educators strive. Dr. Zumwalt achieves it effortlessly.”

Her research also dovetails with her teaching, providing an objective way to study learning. Capitalizing on the strong neuroscience program in her department, Zumwalt looks at how knowledge of brain function can inform educators and further their work. “My personal interest is the transition from naïve learner to expert; what happens to a person when they go from knowing little to nothing about a particular topic—like medical students entering the gross anatomy course—to becoming an expert radiologist who can look at an abstract representation of the body and quickly see a tumor or lesion.” Zumwalt recently published a paper in which she and her research team used gaze tracking to document that progression.

Inspired by the educational endeavors of her colleagues, she directs John McCahan Medical Campus Education Day, an annual event that fosters a community for educators on the BU Medical Campus who are interested in educational innovations and scholarship. She also participated in the task force to develop and implement a professional development program for junior faculty.

Currently, she is revising the first-year medical curriculum as a co-chair of the BUSM I Revision Subcommittee of the School’s Medical Education Committee. “It is challenging to change curriculum, as there are so many ripple effects of any substantial change,” she says. “But to be able to take a step back to look at what we do well and identify what needs to be

improved is an exciting and interesting responsibility. We all want to get it right; to do what is best for the students.”

Advising students is a big part of her BU life. “Advising is a great way to engage with students and get to know them. The School has a wonderful system of advising in the Academy of Advisors. I know it takes a lot of time, but it’s most rewarding to help them when they’re struggling and to see them fulfill their goals.” Zumwalt also advises master’s degree students, is the faculty advisor for BUMC Pride, the Medical Campus LGBTQ organization, and has served as a School of Medicine representative to the University Faculty Council. On a national level, she is involved in the American Association of Anatomists (AAA), having served on the AAA’s Advisory Committee of Young Anatomists and Board of Directors. ■

## HONORS

**Richard Babayan, MD,** chief and chair of the Department of Urology, was named president elect of the American Urological Association (AUA), effective in May 2015; he will assume the presidency in May 2016. He is the first Boston urologist to be elected national AUA president since 1988. Babayan has served in a number of capacities for the AUA’s New England section over the years, including in the role of section president and representative to the AUA Board of Directors.

**Domenic A. Ciraulo, MD,** professor and chair of psychiatry and chief of psychiatry at BMC, was appointed as the chair of the National Institute of Alcohol Abuse and Alcoholism (NIAAA) study section AA-3, which reviews all grant applications requesting funding for clinical studies of treatments for alcoholism and health services research on alcoholism. He has been funded by NIAAA for more than 18 years, serving as a Principal Investigator (PI) at the BUSM site for the COMBINE study, PI on his own R01 grants, and mentor for a number of K awards.

**Gerard Doherty, MD,** chair of the Department of Surgery and chief of surgery at BMC, was elected president of the American Association

of Endocrine Surgeons. He will serve as president through 2015.

**Michael F. Holick, MD, PhD**, professor of medicine, physiology and biophysics, was awarded the American Society for Bone and Mineral Research's (ASBMR) 2014 Louis V. Avioli Award, which honors a member of the ASBMR for fundamental contributions to bone and mineral basic research. It is named for ASBMR's first president and founding member, Louis Avioli, MD, who was one of the world's leading medical authorities on osteoporosis and calcium metabolism.

**Judith A. Linden, MD**, vice chair for education and associate professor of emergency medicine, was honored as the 2014 Community Clinician of the Year by the Suffolk District Medical Society, one of the district societies of the Massachusetts Medical Society, the statewide professional association of physicians. The Community Clinician of the Year Award was established by the Massachusetts Medical Society to recognize a physician from each of the Society's 20 districts who has made significant contributions to his or her patients and the community and who stands out as a leading advocate and caregiver.

**Christine Pace, MD**, assistant professor of medicine and primary care physician at BMC, was selected as one of the Greater Boston Chamber of Commerce's "Boston's 2014 10 Outstanding Young Leaders." The list acknowledges the contributions of young leaders who come from the public, private, and nonprofit sectors of Greater Boston. Pace leads an interdisciplinary team at BMC that integrates behavioral health services into care provided at the Adult Primary Care Clinic.

**Vasan Ramachandran, MD**, professor of medicine and senior investigator of the Framingham Heart Study, was awarded the American Heart Association (AHA) 2014 Population Research Prize for "brilliantly seizing upon opportunities to translate cutting-edge bench science into an epidemiological context, thereby making fundamental contributions to identifying systemic markers for cardiovascular risk, both here and in developing countries."

**Rose Razzino**, administrative manager in the Laboratory of Neuropsychology and Behavioral Neuroscience, received the 2014 BUSM Academic Affairs Office Excellence in Service Award. With BU since 1971, Razzino began her outstanding work with the Behavioral Neuroscience PhD Program at its inception 29 years ago. She manages all administrative aspects of the Behavioral Neuroscience PhD Program, coordinating activities in the Behavioral Neuroscience Program within GMS and clinical departments affiliated with the Laboratory of Neuropsychology, and grant-related administrative activities for the Laboratory of Neuropsychology. She supports the PhD Program in its numerous and frequent interactions with other BU departments and the VA Boston Healthcare Service.

**Dr. Erika Wolf**, assistant professor of psychiatry and a psychologist in the Behavioral Sciences Division of the VA National Center for PTSD, was selected as the 2014 recipient of the Chaim and Bela Danieli Young Professional Award from the International Society for Traumatic Stress Studies. The award recognizes outstanding contributions to the traumatic stress field by an early career professional and reflects her exceptional scholarship in the areas of PTSD genetics and assessment.

**APPOINTMENTS**

**Ronald Corley, PhD**, was appointed director of BU National Emerging Infectious Diseases Laboratories (NEIDL) effective October 1. He



succeeds John R. Murphy, a BUSM professor of medicine and microbiology, who has served as interim director since 2011. Corley has served as associate

director of the NEIDL for five years as well as associate provost for research on the Medical Campus and chair of the Department of Microbiology.

Corley will continue as professor and chair of microbiology, though not as associate provost for research.

"Dr. Corley's leadership and vision will allow the NEIDL to reach its potential of being one of the premier centers for research on emerging and deadly infectious diseases," said Gloria S. Waters, vice president and associate provost for research. "His experience as the associate director over the past five years will ensure a smooth transition and has shown that he has the collaborative style necessary to run a center like this and strengthen this area of research excellence at BU."

The lab has been approved for some Biosafety Level 3 (BSL-3) research and is currently working to secure the necessary permits and approvals for BSL-4 research from

the Boston Public Health Commission and the CDC. Corley's goal is to begin BSL-4 research in the NEIDL in 2015. He also plans to begin a significant recruitment campaign across a number of different disciplines.

Corley earned a BS in zoology and a PhD in microbiology and immunology from Duke University. He has been MED's microbiology chair since 1994, a position he says taught him to work across disciplines and build broad collaborations between the Charles River and Medical Campuses.

—Barbara Moran, BU Today

**Sandro Galea, PhD**, an internationally respected physician and epidemiologist known for his research linking health to such



social disadvantages as poverty and lack of education, has been appointed the new dean of the School of Public Health. Galea, formerly the Anna Cheskis Gelman and Murray

Charles Gelman Professor and chair of the department of epidemiology at Columbia University's Mailman School of Public Health, assumed the BU post on January 1.

Galea, who in 2006 was named one of *Time* magazine's epidemiology innovators, served on the New York City Board of Health and chair of the New York City Department of Health and Mental Hygiene's Community Services Board. His research has examined many aspects of public health, from the causes of brain disorders to the consequences of mass trauma and conflict worldwide, including the September 11 attacks, Hurricane Katrina, conflicts in sub-Saharan Africa, and the American wars in Iraq and Afghanistan. He was the lead author on a groundbreaking study published in the *American Journal of Public Health* in 2011 that calculated the number of deaths caused by six social factors. That study, a meta-analysis of 47 earlier studies, concluded that each year 133,000 deaths could be attributed to poverty and 176,000 deaths could be attributed to racial segregation.

Galea has published more than 450 scientific journal articles, 50 book chapters and commentaries, and 9 books. His latest book, coauthored with Katherine Keyes, is the textbook *Epidemiology Matters: A New Introduction*

to *Methodological Foundations*. He is a past president of the Society for Epidemiologic Research and an elected member of the American Epidemiological Society and of the Institute of Medicine of the National Academy of Sciences. Galea trained as a primary care

physician at the University of Toronto and practiced in rural communities in Canada and Somalia. He then returned to academia and earned a master's degree in public health at Harvard and a DrPH at Columbia.

—From a BU Today story by Art Jahnke ■

**Publications**

*Dermatopathology Interactive Atlas, Second Edition*  
Online at:  
[www.dermopathatlas.com](http://www.dermopathatlas.com)  
**Jag Bhawan, MD**

**Jag Bhawan, MD**, professor of dermatology and pathology and head of the Dermatopathology Section and vice chair in the BUSM Department of Dermatology, and co-authors Hugh Randolph Byers, MD, PhD, and Purnima Sau, MD, have made the *Dermatopathology Interactive Atlas* available online. The 5,000 images and 10,000 links contained in the atlas can be accessed at no cost for anyone to learn, review dermatopathology, or aid in diagnosing skin lesions. The atlas is also useful to prepare for examinations in dermatopathology and dermatology and includes a quiz following the review.

**Paul Zoll, MD: The Pioneer Whose Discoveries Prevent Sudden Death**  
Free People Publishing, 2014  
**Stafford I. Cohen, MD (MED'61)**

*Paul Zoll MD: The Pioneer Whose Discoveries Prevent Sudden Death* is an account of the life and work of Dr. Paul M. Zoll, the physician and medical researcher behind the treatments and techniques we



use today to save victims of heart attacks and to prevent premature deaths from other forms of heart failure. The biography examines his childhood, education, military service, family relationships, recreational interests, and social associations from 1911 to 1999. The book focuses on Dr. Zoll's contributions to medicine, especially his breakthroughs in cardiac care and his development of closed-chest pacemakers and defibrillators, implantable pacemakers, and heart monitors. Through documented historical analysis, the book shows how Dr. Zoll created and was the first physician to use devices that are forerunners of life-saving implements commonly used today.

The author, Dr. Stafford I. Cohen, was a medical resident under Dr. Zoll and, later, his colleague at Beth Israel Hospital in Boston. His book, the first full-length biography of Dr. Zoll, firmly establishes him as a world-class innovator whose treatments and inventions truly make him the father of modern electrocardiac therapy.

**The House of Black and White: My Life with and Search for Louise Johnson Morris**  
Strategic Book Publishing, 2014  
**David Sherer, MD (MED'84)**

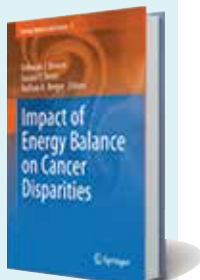
*The House of Black and White* is the story of a young boy so strongly influenced by his family's maid that, as a man, he begins searching for her three decades after she

went missing. This compelling memoir begins in 1959 in suburban Washington, DC, and concludes in 2012.

**Impact of Energy Balance on Cancer Disparities**  
Springer, 2014  
**Gerald V. Denis, PhD, co-editor**

Dr. Gerald Denis, associate professor of pharmacology and medicine, co-edited this volume that reviews disparities in cancer genetics, etiology, treatment, and survivorship that are associated with differences in energy balance and how those differences and disparities may be affected by geography, socioeconomic status, ethnicity, biology, behavior, and other factors. State-of-the-art strategies are outlined to alter these problems at the individual, community, and policy levels.

The book provides a comprehensive assessment of the multiple contributions of disparities in energy balance and how they affect cancer. ■



**Thomson Reuters Names BUSM Faculty and Framingham Heart Study Researchers Among World's Most Influential Scientific Minds 2014**

BUSM faculty members and Framingham Heart Study researchers are listed in Thomson Reuters' *The World's Most Influential Scientific Minds 2014*. Reuters' list of "some of the best and brightest scientific minds of our time" is determined by analyzing data on which researchers have produced work that is most frequently acknowledged by peers. Reuters analyzed citation data over the last 11 years to identify those who published the highest-impact work (2002-2012 and 2012-2013).

Faculty members **Michael Holick** (medicine, physiology and biophysics) and **Alice Jacobs** (medicine/cardiology) are included on the list under clinical medicine as are BUSM/BU Framingham Heart Study researchers **Emelia Benjamin** (medicine/cardiology), **Ralph D'Agostino** (mathematics/statistics), **Martin Larson** (mathematics/statistics), **Daniel Levy** (medicine/cardiology), **Joseph Massaro** (biostatistics), and **Vasan Ramachandran** (medicine/cardiology).

"Everyone acknowledged in this book is a person of influence in the sciences and social sciences. They are the people who are on the cutting edge of their fields. They are performing and publishing work that their peers recognize as vital to the advancement of their science. These researchers are, undoubtedly, among the most influential scientific minds of our time." (Thomson Reuters' *The World's Most Influential Scientific Minds 2014*)

PHOTO BY KALIMAN ZABARSKY

PHOTO OF GALEA BY DAN AGUIRRE

**Jasmine Chobanian**, cherished wife of Aram V. Chobanian, MD, President Emeritus of Boston University and Dean Emeritus of BUSM, on July 25, 2014, after a brief illness. Considered the "First Lady" of Boston University and the Medical Campus by her many admirers, Mrs. Chobanian was honored by the University in 2006 with a gala dinner and arts program.

Much beloved and warmly regarded by the entire BUSM community, Mrs. Chobanian will be greatly missed.

A graduate of Brown University (Pembroke College), Mrs. Chobanian was a research hematology technician at Harvard's Thorndike Memorial Laboratories. She was also a talented portrait painter who attended the Boston Museum School and studied under the late artist Conger Metcalfe. A patron of the arts, she served as a member of the Board of Trustees of the Boston Ballet Company. Much beloved and warmly regarded by the entire BUSM community, Mrs. Chobanian will be greatly missed.

**Alvin Essig, MD**, professor emeritus of physiology and medicine, on July 22, 2014, at the age of 91. A BUSM professor for more than 40 years, Essig was an international scholar regarding the application of thermodynamics to epithelial transport processes. He worked with Ora Kedem, a pioneer in the development of irreversible thermodynamics, at the Weizmann Institute

in Rehovot, Israel. He later joined Tufts Medical School faculty, lectured in biophysics at Harvard Medical School, and joined BUSM in 1973 as a professor of physiology and research professor of medicine, where he worked until his retirement in 2013.

He received his BS in mathematics from Harvard College and his MD from The Ohio State University. After internships at Kings County and Jewish Hospital in Brooklyn, New York, he served as a lieutenant (junior grade) in the US Navy. He specialized in nephrology at New York Presbyterian Hospital and Massachusetts General Hospital. He published numerous scientific articles and in 1983 authored, with Roy Caplan, what is now considered a classic textbook, *Bioenergetics and Linear Nonequilibrium Thermodynamics*.

**Terrell Gibbs, PhD**, associate professor of pharmacology & experimental therapeutics, on August 15, 2014, at MD Anderson Cancer Center in his home state of Texas. A BUSM faculty member for 24 years, Dr. Gibbs received his undergraduate degree in biology from MIT and his doctoral training in pharmacology from Harvard Medical School. He pursued his interests in neuropharmacology, first at Downstate Medical Center in the Department of Anatomy & Cell Biology at SUNY Health Science Center in Brooklyn, New York, and then at Boston University, working in close collaboration with Pharmacology Chair Dr. David Farb.

Dr. Gibbs' research involved elucidation of the molecular

mechanisms of modulation of GABAergic function by benzodiazepines and neurosteroids and of CNS abnormalities such as autism. His discoveries were revealed in more than 45 publications and many abstracts presented at the Society of Neuroscience annual meetings.

A recent recipient of the Excellence in Education and Mentoring Award from the Neurosteroid Congress, he played a key role in the design and implementation of the curriculum for the Biomolecular Pharmacology Predoctoral Training Program at Boston University and guided innumerable PhD candidates. He taught medical, dental, and master's degree students at BU, and all medical students over the past 23 years have learned the principles of pharmacodynamics under his tutelage.

**Kwabena Kyei-Aboagye, MD, PhD**, former BUSM associate professor in obstetrics and gynecology, in a car accident July 24, 2014, on the University for Development Studies (UDS) campus in Tamale, Ghana, at the age of 74. He was the Acting Dean of the UDS School of Medicine and Health Sciences.

In addition to his work at BUSM, Dr. Kyei-Aboagye was a member of the Department of Obstetrics and Gynecology at BMC. He joined the BUSM faculty in 1984 and left in 2008 to join UDS.

He was instrumental in establishing BMC's program to care for pregnant women with addiction issues and was recognized for this effort

by the Boston Public Health Commission in 2001.

Dr. Kyei-Aboagye earned his bachelor's degree from the University of Ghana, and both a PhD in pharmacology and MD degree from McGill University in Montreal, Quebec, Canada.

**Arnold Relman, MD**, former BUSM professor of medicine, on June 17, 2014, at the age of 91. Editor of the *New England Journal of Medicine (NEJM)* from 1977 to 1990, Relman graduated from Cornell University in 1943 with Distinction in Philosophy and received his medical degree from Columbia University in 1946. After his internship and residency at Yale-New Haven Hospital, he served as a National Research Council Fellow in medical sciences at BUSM. In 1951, he joined the BUSM faculty as an assistant professor of medicine, achieving the rank of professor in 1961, and was named the Conrad Wesselhoef Professor of Medicine in 1967. He also served as director of the V and VI Medical Services at Boston City Hospital, now BMC. He was editor of the *Journal of Clinical Investigation* from 1962 to 1967 and 1968 to 1977, and the Frank Wister Thomas Professor of Medicine and chair of the Department of Medicine at the University of Pennsylvania School of Medicine.

He also was a professor of medicine at Harvard Medical School (HMS) and senior physician at Brigham and Women's Hospital in Boston. In 1991, he became editor-in-chief emeritus of *NEJM* and professor of medicine and of social medicine at HMS.

He was a fellow of the American Academy of Arts and Sciences, a member of the Institute of Medicine of the National Academy of Sciences, and president of the American Federation for Clinical Research, the American Society of Clinical Investigation, and the Association of American Physicians. He was a member of the American Board of Internal Medicine, as well as of the board of directors of the Hastings Center for Bioethics. He was a master of the American College of Physicians and a fellow of the Royal College of Physicians of London.

**Gene Stollerman, MD**, BUSM professor emeritus, on August 5, 2014, at the age of 93. Dr. Stollerman joined the faculty of BUSM in 1981, where he advocated for research and clinical training in geriatrics, preventive medicine, health services research, and primary care. Appointed a distinguished physician of the US Department of Veteran Affairs in 1986, he promoted research to aid aging veterans and helped establish a research center in Bedford to evaluate the outcomes of geriatric care.

He graduated from Columbia University College of Physicians and Surgeons and served as chief resident in medicine at Mount Sinai Hospital in New York. He also served at the Percy Jones Army Hospital in Battle Creek, Michigan, where he was a captain in the US Army Medical Corps. Returning to Mount Sinai in 1948, he completed his residency and was a microbiology fellow at New York University. ■

# Students

## On the Farm at the Medical Student Residence



Associate Dean for Academic Affairs Doug Hughes, MD, (red tie) joins students for planting season at the Medical Student Residence's (MSR) lower 40 acres. The raised beds behind the MSR provide students with fresh, organic produce for healthy eating.

### HONORS

**Yvette Joon Ying Boon**, a Department of Pharmacology and Experimental Therapeutics doctoral student, was selected to receive the Perdana Scholar Award from the Education Department of Malaysia for students studying in the United States. The goal of the program is to identify, document, and promote Malaysian students who have excelled in areas including academics, leadership, sports, entrepreneurship, invention, and research. The Prime Minister of Malaysia presented the award September 26 in New York.

**Katrina Ciraldo** and **Daniel Silva** were named recipients of the American Society of Tropical Medicine and Hygiene (ASTMH) 2014 Benjamin H. Kean Travel Fellowship in Tropical Medicine. Through a highly competitive process, 22 fellows from 18 medical schools were selected. This fellowship is the only medical student award dedicated to nurturing a career path for physician-scientists in tropical medicine and is presented annually to full-time medical students at accredited medical schools in North America.

**Leslie Maness**, a third-year medical student, was one of six 2014 Margaret E. Mahoney Fellows. The Mahoney Fellowship program of the New York Academy of Medicine (NYAM) provides stipends for outstanding medical, dental, public health, public policy, and graduate nursing students to conduct summer research projects on some aspect of health care delivery transformation for vulnerable populations and/or early childhood health and development, with an emphasis on policy implications. Maness conducted her research at New York University School of Medicine/Bellevue Hospital on the impact of low health literacy and limited English proficiency on parent/caregiver medication dosing errors when delivering liquid medications to children. She presented her summer research project at the NYAM.

**Lauren Sweetser**, a first-year student, was named an Albert Schweitzer Fellow for the 2014-15 Class. She and approximately 220 other 2014-15 Schweitzer Fellows will spend the next year developing lifelong leadership skills while learning to effectively address the social factors that impact health. Schweitzer Fellows follow the example set by famed physician-humanitarian Albert Schweitzer, for whom the fellowship is named. ■