



University of Tennessee, Knoxville

TRACE: Tennessee Research and Creative Exchange

Chancellor's Honors/Citations

Office of the Chancellor

2010

Research and Creative Achievement (2010)

Mongi Abidi

Elizabeth Howell

Janice Musfeldt


Hildegard Schuller

Follow this and additional works at: https://trace.tennessee.edu/utk_chanhonor

Recommended Citation

Abidi, Mongi; Howell, Elizabeth; Musfeldt, Janice; and Schuller, Hildegard, "Research and Creative Achievement (2010)" (2010). *Chancellor's Honors/Citations*.
https://trace.tennessee.edu/utk_chanhonor/141

This Newsletter is brought to you for free and open access by the Office of the Chancellor at TRACE: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Chancellor's Honors/Citations by an authorized administrator of TRACE: Tennessee Research and Creative Exchange. For more information, please contact trace@utk.edu.



Office of the Chancellor »

About the Chancellor

Chancellor's Cabinet

Advisory Groups

Announcements

Chancellor's Honors

Chancellor's Professors

Religious and Cultural Holidays

Honorary Degrees

Policy Central

Chancellor's website

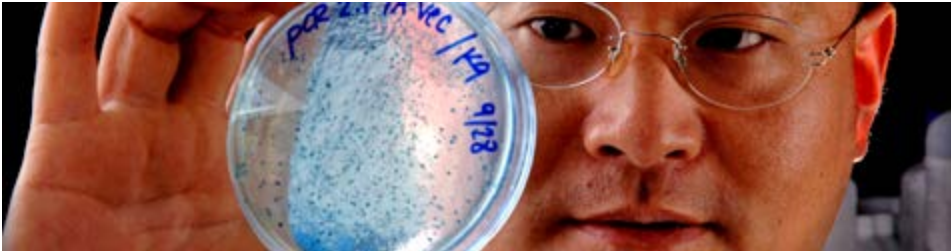
utk.edu


Office of the Chancellor

Tmail | Online@UT | A-Z Index

Campus

Chancellor's Honors 2010 » Research and Creative Achievement






Research and Creative Achievement honors are awarded to tenured faculty who have received national or international recognition in their field.

2010 Research and Creative Achievement

Mongi Abidi


Mongi Abidi, professor of electrical engineering and computer science, has excelled in the past 10 years in the area of 3-D imaging processing. His scholarship, research, and expertise in the emerging areas of safety and security applications in luggage inspection and video surveillance of high-security facilities have led to partnerships and grant funding with companies like the National Safe Skies Alliance and Phenotype Screening Corporation.



Elizabeth Howell

Elizabeth Howell is a professor of biochemistry and cellular and molecular biology. Her work focuses on the structure and function of dihydrofolate reductase (DHFR), an enzyme necessary to DNA synthesis and cell health. Her work led DHFR to be classified as a primitive enzyme that provides a model for protein design.

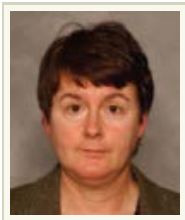
Howell's more recent work has explored the role that water has in the catalytic mechanism of the enzyme. She recently was honored by the National Science Foundation's Molecular and Cellular Biosciences Division. They selected one of her computer-generated models of DHFR as a work of art to showcase the broad spectrum of science.



http://web.utk.edu/~provwww/honorsbanquet/2010/research.shtml[10/7/2014 2:31:58 PM]

Janice Musfeldt

Janice Musfeldt, professor of chemistry, joined the faculty in 2001. Since then, she has made many contributions to the field of materials spectroscopy, specifically the development of high magnetic field spectroscopy of complex materials. Her research also is making an impact by using optical spectroscopy to understand functionality. Musfeldt's discovery of photoconductivity and the successful fabrication of a working ferroelectric polar oxide solar cell has been rewarded and very well-cited in her field.



Hildegard Schuller

Hildegard Schuller, distinguished professor of pathology, has been studying the effects of environmental carcinogens for 35 years. She has developed vast expertise in the mechanisms of how normal cells are transformed into cancer cells by the components of cigarette smoke, in particular nicotine. Schuller made the discovery that lung cancer cells express receptors that bind to nicotine and its derivatives. She hypothesized that the components of tobacco smoke bind to nicotinic acetylcholine receptors, which are now known to be expressed throughout the body and can have profound effects on cell behavior.