

**1990 CARL G. HARTMAN AWARD
CHARLES A. BARRACLOUGH**

The Carl G. Hartman Award is the highest award bestowed by the Society for the Study of Reproduction. It is presented in recognition of an outstanding career of research and scholarly activities in the field of reproductive biology.

The 1990 recipient of the Carl G. Hartman Award is Dr. Charles A. Barraclough. Dr. Barraclough received the B.S. degree from St. Joseph's College in 1947, the M.S. degree from Rutgers University in 1952 and the Ph.D. degree in zoology from Rutgers in 1953 where he was a student of a previous Hartman awardee, Dr. Jim Leatham. Following his post-doctoral research training with Dr. Charles H. Sawyer in the Department of Anatomy of UCLA, Dr. Barraclough spent the first eight years of his professional career as an instructor and assistant professor in the Department of Anatomy at UCLA. Between 1961 and 1962, he was a Research Fellow at Cambridge University; in 1962, he joined his current institution, the University of Maryland School of Medicine, and earned the rank of Professor in the Department of Physiology in 1965. Dr. Barraclough has contributed with distinction to the graduate programs of the University of Maryland as the Director of Graduate Education in the Department of Physiology, the Director of the Training Program in Reproductive Biology, and Director of the Center for Studies in Reproduction of the University of Maryland School of Medicine.

Charlie, as he is known by his colleagues, has been and continues to be a pioneer and a leading investigator in the field of neuroendocrinology. In 1961 he made the seminal observation that a single injection of testosterone into neonatal female rats resulted in the "androgenization" of the hypothalamus such that the normal female pattern of cyclic gonadotropin secretion is lost and chronic anovulation ensues. The resultant concept of sexual dimorphism of the hypothalamus continues to this day to be an active and exciting field of research in neuroendocrinology as well as



behavioral neurobiology. Equally important were his pioneering studies on the control of gonadotropin secretion in female rats which contributed to the identification of two modes of control of LH secretion by the hypothalamus: a cyclic control that is responsible for the preovulatory surge of LH and a tonic control of FSH and LH secretion that is responsible for ovarian folliculogenesis and steroid secretion. In subsequent studies, Dr. Barraclough has continued his detailed investigations providing important and novel information such as the role of catecholamines and opiates on the control of gonadotropin secretion as well as the regulation of the differential secretion of FSH and LH. Dr. Barraclough's current research—the molecular actions of steroids on the synthesis of LHRH and enzymes involved in catecholamine metabolism—continues to be on the forefront of neuroendocrinology. It is not surprising that Dr. Barraclough's research accomplishments have earned him numerous distinctions including two invitations to speak at the Laurentian Hormone Conference as well as the 1984 SSR Research Award. He is a Fellow of the American Association for Advancement of Science and an Honorary Member of the Hungarian Society of Endocrinology and Metabolism.

Throughout his career, Dr. Barraclough has invested heavily in the training of scientists, having been the primary mentor for twenty-two postdoctoral, twelve Ph.D., and eleven M.S. students, many of whom have gone on to establish outstanding independent careers in research in the United States, Europe, Japan, and South America. Dr. Barraclough has served on editorial boards of several scientific journals, has served as chairman of the NIH Reproductive Biology Study Section, and has contributed significantly to the SSR through his work on the Board of Directors, the Program Committee and the Awards Committee.

The addition of Dr. Barraclough's name to the list of previous Carl G. Hartman Awardees is a fitting tribute to his outstanding career as a researcher, scholar, and teacher and is certain to add luster to this Award.

Anthony J. Zeleznik, Chair
1990 SSR Awards Committee

**1990 SSR DISTINGUISHED SERVICE AWARD
JULIA LOBOTSKY**

The SSR Distinguished Service Award is given to an individual to recognize unselfish service and leadership in the advancement of reproductive biology. The recipient of the 1990 Distinguished Service Award is Ms. Julia Lobotsky. Ms. Lobotsky received the B.S. degree from Keuka College in 1943 and the M.S. degree in 1946 from the University of Rochester. From 1946 until 1950, Ms. Lobotsky was a teaching and research assistant in the Departments of Obstetrics and Biochemistry of Syracuse University School of Medicine and from 1950-1962 she was a teaching and research assistant in the Department of Obstetrics at the State University of New York Upstate Medical Center in Syracuse. In 1962 Ms. Lobotsky joined the staff of the Worcester Foundation for Experimental Biology as a Biochemist. In 1973, she accepted a position as biologist in the Population and Reproduction Grants Branch of NICHD, and in 1979 she joined the Reproductive Sciences Branch of the Center for Population Research of NICHD.



During her stay at the Worcester Foundation, Ms. Lobotsky worked with Dr. Charles Lloyd on various aspects of adrenal androgen secretion and hirsutism. These studies resulted in more than 30 publications in peer-reviewed journals. From 1970-1973, Ms. Lobotsky served as editor of Research in Prostaglandins. Her experiences in the research laboratory provided her with a strong commitment to excellence and the advancement of research in reproductive biology, which has benefited numerous members of the Society and reproductive biology as a whole. Ms. Lobotsky's contributions to the field can be explained by the simple fact that she has a true concern for the investigator and a deep commitment for research in reproductive biology. In her position at the NIH, Ms. Lobotsky's efforts have influenced the careers of most members of the Society at all stages of their careers by her inexhaustible efforts to assist us in obtaining federal funding for our training as well as our research. As a true liaison between the investigator and NIH, Ms. Lobotsky has been the conduit through which many of us

gain insights into the workings of the grant review process. It is she who bears the good news when our grants are funded and it is she who provides assistance and encouragement and advises us on how to improve our grants when they are not funded. She regularly attends meetings involving endocrinology and reproduction research where she keeps abreast of current developments in the field. Her attendance at these meetings also provides both young and established investigator the opportunity to obtain advice on how to better prepare and submit their grants.

In addition to the individual attention she provides to researchers, Ms. Lobotsky has served on many NIH task forces and advisory committees relating to research in reproductive biology and endocrinology. In this latter regard, she has been an unflinching advocate of support for the reproductive sciences. She has also been an enthusiastic supporter and contributing member of the SSI. Besides being a regular attendee at the annual meetings, Ms. Lobotsky has contributed her administrative expertise by participating on and chairing several committees of the Society, including the Nominating Committee, the Bylaws Committee, and the Membership Committee.

The Distinguished Service Award is given to recognize "unselfish service" to reproductive biology. As an advocate, messenger, and advisor to many of us, Ms. Lobotsky receives no personal recognition for our successes other than her own satisfaction in the knowledge that her efforts have advanced the field of reproductive biology.

Anthony J. Zeleznik, Chair
1990 SSR Awards Committee

1990 SSR RESEARCH AWARD

The SSR Research Award is given to recognize an active member of the Society for the Study of Reproduction for meritorious research conducted during the past six years. For the 1990 award, the Society has elected to present a dual award to Drs. Fuller W. Bazer and R. Michael Roberts for their outstanding research on the interactions between the conceptus and the uterus during maternal recognition of pregnancy and the regulation of fetal growth. In presenting a dual award, the Society acknowledges the contributions made by each to the field of reproductive

biology as meriting the SSR Research Award on an individual basis.

FULLER W. BAZER

Dr. Bazer received the B.S. degree in biology from Centenary College of Louisiana in 1960, the M.S. degree in animal science from Louisiana State University in 1963 and the Ph.D. degree in animal sciences from North Carolina State University in 1969. In 1968, he joined the faculty of the Animal Science Department of the University of Florida as an assistant professor and currently holds a dual appointment in the Departments of Animal Sciences and Pediatrics of the University of Florida as a Graduate Research Professor.



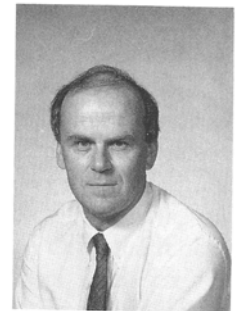
Dr. Bazer's research interests are centered around the interactions between the uterus and the conceptus that contribute to the maternal recognition of pregnancy as well as the growth and development of the fetus. By meticulously characterizing the secretions of the porcine and ovine uterus as well as the conceptus, Dr. Bazer has provided the scientific community with a wealth of information regarding the functions of these secretory proteins as well as the control of their secretion. Of primary importance, Dr. Bazer's research has demonstrated that these uterine secretory proteins serve not only as enzymes and carrier proteins for transfer of solutes between the maternal and fetal circulation, but also may function as regulators of fetal growth and development. For example, in addition to characterizing the role of the uterine protein uteroferrin in the delivery of iron to the fetus, Dr. Bazer's studies have provided evidence that this protein may be involved as a fetal hemopoietic growth factor. The study of proteins secreted by the ovine conceptus has led to the identification and characterization of ovine trophoblast protein-1 (oTP-1), and its role in the maternal recognition of pregnancy in this species. Dr. Bazer's creative insights have further expanded the importance of oTP-1, which is similar to interferons of the alpha class, by demonstrating that this protein has antiviral properties but does not exert cytotoxic effects on the host cell. These two examples clearly

demonstrate Dr. Bazer's ability to extend the implications of his research from the field of reproductive biology into other areas of biology that may have major implications on human and animal health and development.

Dr. Bazer's research has been recognized on a national and international level including the American Society of Animal Science Physiology and Endocrinology Award and the Goding Lecture of the Australian Society for Reproductive Biology. Dr. Bazer was elected a Fellow of the American Society for the Advancement of Science in 1988. He has served on NIH and USDA peer review boards, editorial boards of leading scientific journals, and is currently Editor-in-Chief of *Biology of Reproduction*.

R. MICHAEL ROBERTS

Dr. R Michael Roberts received the BA degree in botany from Oxford University and the D. Phil. degree in plant physiology and biochemistry from oxford in 1965. Dr. Roberts' early research interests were in the field of botany and involved studies on plant cell wall biochemistry. In 1970 he joined the faculty of the Department of Biochemistry and Molecular Biology of the University of Florida where he earned the rank of Professor in 1976. In 1985 he joined the faculty of the Departments of Animal Science and Biochemistry of the University of Missouri-Columbia and is currently the J.F. McKenzie Distinguished Professor of Reproductive Biology at the University of Missouri.



Dr. Roberts, while a plant biochemist at the University of Florida, became interested in mammalian cellular proteins and the "purple protein" that was being studied by Dr. Bazer's research group. From that time on, Dr. Roberts has contributed greatly to our understanding of the biochemical structure and functions of proteins that are involved in the communication between the conceptus and the uterus. In addition to his novel and important finding that oTP-1 is closely related to the alpha family of interferon, Dr. Roberts has systematically analyzed the biochemical properties of other uterine proteins

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such as uteroferrin, retinol-binding proteins as well as a uterine plasmin inhibitor that may contribute to the non-invasive nature of placentation of the porcine conceptus. As part of his continuing investigations on the regulation of oTP-1 and its homologue from cows, Dr. Roberts and his students have characterized the endometrial receptor for oTP-1 and identified a series of endometrial proteins that appear to be under regulation by oTP-1. Dr. Roberts has obtained cDNAs for both the ovine and bovine forms of TP-1 as well as uteroferrin and its serpin-like associated protein. With these molecular probes, Dr. Roberts has initiated studies to examine the mechanisms by which the synthesis of these proteins is regulated. It is clear that Dr. Roberts' talents as a biochemist and reproductive biologist have greatly expanded our understanding of the interactions between the uterus and the conceptus and have added new dimensions to fundamental questions in reproductive biology.

Dr. Roberts is a past recipient of a Research Career Development Award and currently serves on NIH and NSF peer review boards. He has served as Vice-chairman and Chairman of recent Gordon Conferences on Reproductive Tract Biology and has participated in many national and international symposia.

The recognition bestowed upon Drs. Bazer and Roberts by the awarding of this year's SSR Research Award is truly merited and serves to highlight the exponential rate of progress that can be made by the merging of the disciplines of physiology and molecular biology.

Anthony J. Zeleznik, Chair
1990 SSR Awards Committee

1990 NEW INVESTIGATOR AWARD

The New Investigator Award is given by the Society to encourage meritorious science by our young researchers. The first and second place awards are sponsored by Serono Symposia and consist of a plaque and a monetary award.

The recipient of the first place award is Suzanne M. Moenter for her abstract



"Does a preovulatory surge Of GnRH occur in the ewe?" Ms. Moenter received the B.S. degree in Agriculture from the University of Illinois in 1985 and the M.S. degree in Animal Sciences from the University of Illinois in 1986. She is currently a doctoral student in the Department of Physiology of the University of Michigan working with Dr. Fred J. Karsch and expects to receive the Ph.D. degree in 1991.

The recipient of the second place award is Dana GaddyKurten for her abstract "Alpha-2-macroglobulin, a unique molecular marker of prolactin action in rat granulosa cells and corpora lutea." Ms. Gaddy-Kurten received the B.S. degree in Biology and Chemistry from the University of Arkansas at Little Rock in 1980 and the M.S. degree in Zoology from Texas A&M University in 1985. She is



currently a doctoral student in the Department of Cell Biology of Baylor College of Medicine working with Dr. JoAnne S. Richards and expects to receive the Ph.D. degree in 1991.

Anthony J. Zeleznik, Chair
1990 SSR Awards Committee