

Reproductive Immunology: 30 Years and Counting

The past 30 years have truly flown by, something which those of us who are older thoroughly understand. It is truly amazing to consider the multiple changes that have occurred in the field of Immunology over those years. Immunology was in its infancy in 1980, comparable to what Endocrinology was in 1930, and we have seen it mature through adolescence to adulthood, whereby now we need the most sophisticated immunologic techniques to further advance our studies. Our Society has seen comparable maturity during its 30-year history.

Dr. Jim Scott organized a meeting pertaining to the immunology of reproduction in Iowa City, Iowa, in 1976, which led John P. Gusdon, Jr., MD (a 1959 medical school graduate from the University of Virginia and my fellow classmate) to subsequently become instrumental in bringing us together as a scientific entity. He organized a special interest Immunology Group Meeting, which drew 10 participants in May, 1977, held in conjunction with the Chicago, Illinois American College of Obstetricians and Gynecologists (ACOG) annual conference. The next year, on April 10th, in Anaheim, California, at the ACOG conference, 30 individuals attended this informal special interest group and heard presentations by Alan Beer, MD, Stanley Gall, MD, and Sidney Shulman, PhD.

However, these initial attempts to form a Society did not materialize until after an evening session held during the annual meeting of ACOG in New Orleans, Louisiana, on May 5, 1980, featuring John Gusdon, Lars Cederquist, and me, as speakers. Other attendees included Richard Ablin, Alan Beer, Stan Gall, Jim Scott, and Sid Shulman, who along with Dr. Gusdon and me, are considered to be the founding fathers of our Society.

Dr. Gusdon's ultimate goal, with agreement from those attending, was to form a Society which would include physician representatives from Obstetrics and Gynecology, Pediatrics, Pathology, Internal Medicine, and basic scientists from Physiology, Biochemistry, Microbiology, Pharmacology, and the Animal Sciences. A decision was made to call our organization the American Society for the Immunology of Reproduction (ASIR).

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A short time thereafter, Norbert Gleicher was organizing a symposium on immunology and reproduction to be held at the Mount Sinai Medical Center in New York City in the fall. Thanks to receiving funding from his chairman, Dr. Saul Gusberg, this was a successful endeavor. It became recognized as the first official meeting of our Society.

The following year, (1981) at our meeting, again hosted by the Mount Sinai Medical Center, the Society was officially formalized. Our first President, voted by acclamation, was John Gusdon, with Stan Gall President Elect, Norbert Gleicher Vice President, and Sid Shulman Secretary-Treasurer. The original Councilors were Alan Beer, Carmel Cohen, and Ronald Patillo. The constitution, written by John Gusdon was accepted by those in attendance.

In June, 1982, Dr. Gusdon organized the International Congress on Immunology, held at Bowman Gray School of Medicine, in Winston-Salem, North Carolina. Over 350 registrants from all over the world attended, and the Society gained an international status. Every European country was represented, plus individuals from Australia, Canada, Japan, and some from countries at that time considered to be behind the Iron Curtain. Three of the most stalwart contributors came from Canada: David Clark, Tom Wegmann, and Peeyush Lala. Thirteen corporate sponsors exhibited from this Wednesday through Saturday noon meeting.

Sessions included:

Control Mechanisms of the Immune System	Embryonic Antigens and Pregnancy Proteins
Fertility and Infertility	Pre-Eclampsia and Abortion
Pregnancy Immunology	Immune Complexes
Placental Immunology	Development Immunology
Erythroblastosis, Infection, and Autoimmunity	Reproductive Tumor Immunology

plus four poster sessions. You can recognize the similarity to what we still emphasize at our annual meetings, usually held in mid May to mid June of each year, in various venues and occasionally integrated with the International Congress on Reproductive Immunology.

Our next three meetings were hosted by James Scott in Park City, Utah, Stanley Gall in Durham,

North Carolina, and Alan Beer in Ann Arbor, Michigan in June of 1983, 1984, and 1985, respectively. Each of these gentlemen served as our President, Dr. Gall in 1983, Dr. Beer in 1984, and Dr. Scott in 1985. Other prominent contributors throughout the years included Carolyn Coulam, Tom Gill, and David Clark.

Three of our meetings took place in Canada, two in Toronto, and one in Vancouver. Only three have been held west of the Mississippi. Three were labeled as an International Congress, which enhanced the attendance from those not residing in North America. I, personally, missed only four of our meetings because of other commitments.

Our Society meetings have provided me with the opportunity to receive yearly updates and to incorporate new developments into the lectures I present each spring to second year residents from five medical centers in Southeast Michigan, entitled 'Immunology for the Obstetrician/Gynecologist'.

A parade of presidents and program chairpersons, well known to most of you through their presence at our annual venues and through articles in the literature, truly pioneers in our early history, helped carve a niche for those who followed. However, a move to include in our Society infectious disease specialists and microbiologists, who met with us in the Denver, Colorado, 1993 annual meeting under the program chairperson, Judith Head, PhD., never reached fruition.

Controversies have emerged over immunologic infertility; sperm antigens and antibodies; pregnancy loss because of immunologic factors; pre-eclampsia, eclampsia, and endometriosis as immunologic disorders; the antiphospholipid syndrome; and autoimmune diseases such as Hashimoto's thyroiditis, rheumatoid arthritis, scleroderma, myasthenia gravis, and multiple sclerosis. Research has included attempts to produce contraceptive vaccines, knowing that sperm, seminal fluid constituents, ova, the ovary, the corpus luteum, the zona pellucida, and pituitary and gonadal hormones are all antigenic. Laboratory testing procedures have been produced based upon the antigenicity of and ability to produce antibodies against follicle-stimulating hormone,

luteinizing hormone, human chorionic gonadotropin, prolactin, ovarian, and testicular components.

Where would we be today without the past accomplishments of our Society, especially in the areas of sexually transmitted and infectious diseases? Immunologic mechanisms are continually being elucidated and expanded, which have enabled us to produce vaccines against mumps, whopping cough (pertussis), tetanus, typhoid fever, the regular measles (rubeola), German measles (rubella), herpes simplex, herpes zoster, influenza, chicken pox, smallpox, the human papilloma virus, H1N1 (Influenza A), and hopefully, soon, for HIV, but I will leave these areas to be discussed by the speakers who follow me.

We belong to a vibrant Society, catering to young scientists, which recognizes and honors outstanding individuals, young researchers, and students. The necessity to involve many individuals from diverse backgrounds to expand our horizons has been emphasized throughout our initial formation to the present. The past 30 years have been highlighted as a remarkable journey, led by extraordinary individuals who have left their mark at academic centers, in their communities, around the world, and upon our civilization.

Some of the above material came from personal correspondence between Dr. John Gusdon and the undersigned from 1977 through 1983, and the John P. Gusdon article 'The Early History of the American Society for Reproductive Immunology: A Personal Memoir', published in the *American Journal of Reproductive Immunology*, 2000; 44: 321–324.

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