WHO'S WHO IN THE ACADEMY

The "Who's Who in the Academy" will publish in every issue of the ACTA CYTOLOGICA biographies of some of the Members of the International Academy of Gynecological Cytology.

INFORMATIONS BIOGRAPHIQUES


BIOGRAPIEN VON MITGLIEDERN DER AKADEMIE

In diesem Abschnitt der ACTA CYTOLOGICA werden in jeder Ausgabe Biographien von Mitgliedern der Internationalen Akademie für Gynäkologische Zytologie zum Abdruck gebracht.

QUIÉN ES QUIÉN EN LA ACADEMIA

La seccion QUIÉN ES QUIÉN EN LA ACADEMIA publicará en cada número de la ACTA CYTOLOGICA biografías de algunos de los Miembros de la Academia Internacional de Citología Ginecológica.

GEORGE N. PAPANICOLAOU
THE HONORARY PRESIDENT OF THE ACADEMY

"For one of the greatest contributions of the century to the health of women," Dr. George N. Papanicolaou, in June, became the recipient of the 1957 Century award of the General Federation
of Women's Clubs "in recognition of his development of the uterine cancer cell examination, which has helped save the lives of thousands of women, and which promises to eliminate cancer of the uterus as a major cause of death." Behind this significant award is the story of a man of imagination and faith, of humility and dedication.

Dr. Papanicolaou is the one man who, more than anyone else, has made it possible to educate today's women that they need not die of their second most deadly cancer foe—uterine cancer. His original studies in cytology have led to development of the technique, sometimes called the "Pap smear," which makes possible the detection of cancer of the uterus before it has given rise to any symptoms—at which stage it is almost 100 per cent curable.

From the beginning his restless, inquiring mind sought different horizons than those usually afforded the physician. Born in Coumi, Greece, in 1883, he had received his medical degree from the University of Athens in 1904 and his Ph.D. at Munich in 1910. In 1911 he accepted a post as physiologist in an expedition organized by the Prince of Monaco. Then came the Balkan War, and the young Dr. Papanicolaou joined the Medical Corps of the Greek Army, serving about a year.

In 1913 he and his wife Mary came to America, having now definitively decided that he wanted to do research in the medical and biologic sciences. He started out as a $60-a-month researcher in the Department of Pathology of New York Hospital. But the young Greek doctor rapidly moved on and up. About a year later he became a research associate in the Department of Obstetrics and Gynecology, Cornell University Medical College, 1916-23 Instructor; 1923-37 Assistant Professor; 1937-47 Associate Professor; 1947, Professor of Clinical Anatomy, as well as Consultant of the Kate Depew Strong Clinic at Memorial Hospital, New York Hospital, and the National Cancer Advisory Board.

Although Dr. Papanicolaou's researches have been in the fields of anatomy, pathology and endocrinology, with special application to the physiology of reproduction, it is the development of the uterine cancer cell examination which places him in the company of such great men as Semmelweis, Pasteur, Jenner, and others. Early in the century, the president of the American Gynecological Society had gloomily announced that uterine cancer was incurable. Today, Dr. Charles S. Cameron, former Medical and Scientific Director of the American Cancer Society, says, "We have reached the point where we believe that if the uterine cancer cell examination could be given to all adult women, loss of life from uterine cancer could be almost totally eliminated."

The story goes back to 1917 when Dr. Papanicolaou with the late Professor Charles H. Stockard, in the course of an investigation totally unrelated to the problem of cancer, discovered the value of a vaginal smear as a method of determining the sequence of certain changes in the reproductive organs of the female guinea pig. But it was not until 1923 that the first use was made of this vaginal smear in diagnosis of cancer of the uterus. In that year, Dr. Papanicolaou began a comprehensive study of human vaginal fluids at the Women's Hospital in New York City, and because he felt that the exploration should not be limited to the examination of smears from normal women alone, it was extended to patients with different pathologic conditions, including cancer.

As more cases were examined and more diagnoses confirmed the practical usefulness and reliability of the vaginal smear as a detection technique became obvious, and Dr. Papanicolaou reported these early studies in a brief preliminary paper in 1928, "The first observation of cancer cells in a smear of the uterine cervix," he said, "gave me one of the greatest thrills I ever experienced during my scientific career." Later he felt constrained to add, "I failed to create much faith among my colleagues in the practicability of this procedure. The prevailing opinion, as expressed to me by one of the most outstanding pathologists of the time was, 'Since the uterine cervix was accessible to diagnostic exploration by biopsy, which is a relatively simple procedure, the use of a cytologic examination is superfluous.'" Indeed most of the outstanding doctors and pathologists of that time concurred in this opinion. The consensus was that the cytologic examination of vaginal smears was important only for the purpose of research.

Certainly this must have been a difficult and discouraging time. For the next ten years he devoted his research toward other possible applications of the cytologic method—including studies of the action of sex hormones upon the accessory organs of reproduction and evaluation of endocrinologic criteria. This work was conducted in cooperation with Dr. Ephraim Sorr of the Department of Medicine of Cornell University Medical College. It resulted in the recognition of certain cytologic patterns in the vaginal smears which proved to be very useful for evaluating the effect of some hormones and of their therapeutic action.

In 1933, in association with Dr. Herbert F. Traut and later with Dr. Andrew A. Marchetti, experienced gynecologic pathologists, Dr. Papanicolaou resumed the study of vaginal smears and their application in cancer diagnosis at Cornell Medical College and the Women's Clinic of the New York Hospital. The results of these studies were published in 1934 and were soon confirmed and endorsed by members of the staffs of Harvard Medical School, the Vincent Memorial Laboratories in Boston, and the New York Post-Graduate Medical School. This was the turning point in the attitude of the medical profession toward the use of the vaginal smear, or the uterine cancer cell examination, as it is now known, as an approach to detection of cancer of the uterus and cervix.

Dr. Papanicolaou, speaking of those early days, says that what happened "may be compared to an avalanche, which once started rolling, constantly kept gathering speed and more strength, imparted to it by the many contributions of the many gifted investigators who devoted their talents to this field."

In 1948 the American Cancer Society sponsored the first National Cytology Conference, out of which came the statement that of all cancer detection procedures available, this approach (the uterine cancer cell examination) was unique in that the method detects early cancer before it is visible to the naked eye and before it can produce the danger signals of cancer. A whole new vista of hope was unfolded...
for women. In 1954, the scientific session at the American Cancer Society's Annual Meeting dealt with the potentialities of exfoliative cytology, and the press of the nation carried many articles concerning the papers presented. The public was becoming aware of the work of Dr. Papanicolaou. Earlier, pilot projects for mass cytologic screenings had been initiated in order that an epidemiologic study might be made as to the effectiveness of the uterine cancer cell examination.

At the Third National Cancer Conference held in Detroit in June 1956, and attended by scientific men and physicians from all over the world, the results of some of these studies were reviewed and consensus was "that cytology is the most sensitive and exact method available for the detection of early cervical cancer." There is now widespread acceptance of the Papanicolaou method as a great life-saving detection tool and it appears realistic to anticipate the day when wider use of the uterine cancer cell examination technique may make it possible to virtually eliminate cancer of the cervix as a cause of death.

Ever the careful man of science, Dr. Papanicolaou stresses the limitations of the examination. He says, "In spite of great advances made in the cytologic diagnosis of cancer, we still have to depend on the biopsy and most conclusive and positive smear of proof of cancer is the biopsy itself. It does not eliminate the need for a careful clinical work-up and a thorough examination of a tissue section by a qualified pathologist." Dr. Papanicolaou is credited with being responsible for the training of most of the leading cytologists in this country and abroad. Indeed, one of his disciples is his own very attractive young niece, who is studying management of cancer clinics so that she can introduce new methods in Greece.

The honor bestowed on Dr. Papanicolaou by the General Federation of Women's Clubs is but the latest of many that he has earned. In 1948 he received the Borden Award of the Association of American Medical Colleges and the Amyot Award of the American Association of Arts and Sciences; in 1950 the Lasker Award of the American Public Health Association; 1951 the First Award of the Order of AHEPA, as the most outstanding American scientist of Greek descent; in 1952 the American Cancer Society Award for Distinguished Service to Cancer Control; in 1953 the Wien Award and the Royal Order of Phoenix; in 1954 the Modern Medicine Award; in 1955 the Bertner Foundation Award, and there were others.

Yet despite all these honors, Dr. Papanicolaou remains the earnestly dedicated researcher. Writing in a scientific journal, he says, "...one should not lose sight of the fact that the cytological method which has met with universal favor within the past few years because of its successful application in cancer detection and diagnosis, is an outgrowth of fundamental biological studies. In this we may find the elements of another noteworthy example of the all-important role of basic research in opening new and ever-widening avenues of investigation leading to accomplishments of broad significance for the advancement of science and the benefit of mankind."

What is Dr. Papanicolaou doing today? He travels daily from his home in Douglaston, Long Island, to his office at Cornell University Medical College in New York City. Usually Mrs. Papanicolaou does the driving. She assists him in the office, keeping records and managing the detail work. The American Cancer Society has arranged for an annual grant of $10,000 to Cornell Medical College, which along with additional support from Cornell and the Albert and Mary Lasker Foundation, will enable Dr. "Pap" now Emeritus Professor of Clinical Anatomy, to concentrate all his time and energy on cancer research.

Dr. Papanicolaou is held in particular esteem by his associates and students for his rare faculty of sharing with others the skill and knowledge he has developed over the years, as well as for his unfailing kindness and sympathy. Never has he lost his hunger for and appreciation of beauty, nor the reverence and awe that filled him as a young boy for the manifestations and forces of creative nature. Even in his most learned papers he pays them tribute. At the presentation of the Passano Award in Chicago in June 1956 he said, "One cannot help but admire the wonderfully balanced mechanism of this ceaseless process of death and regeneration, which actually constitutes a continuous rejuvenation of the body and forms the physical basis of our every-renewing personality."

His recreations are simple—swimming, a little gardening, long walks. Sometimes, accompanied by Mrs. Papanicolaou at the piano, he'll take up the violin, and together they'll enjoy the music of their youth. He may not know George Chapman's verse, but most certainly these lines typify him who has made "one of the greatest contributions of the century to the health of women."

"So our lives
In acts exemplary, not only win
Ourselves good names, but doth
to others give
Matters for virtuous deeds, by
which we live."


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