Contribution of the Romanian Scientists to Gerontology and Geriatrics

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This paper describes the roots, organization and originality in scientific concept of the Romanian gerontology and geriatrics (G&G), which contributed worldwide to the establishment of the field of G&G as a distinct entity among other medical specialties. The paper also highlights key Romanian scientists whose ideas and solid research laid the foundation for the first Institute of G&G in Bucharest, Romania, the first of its kind in the world. In particular, we are focusing on the contributions made by Prof. Ana Aslan, an international ambassador of Romanian G&G.

Key words: Aging, Medical, Romania, Specialty, Treatment

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“...To grow old in a beautiful and dignified way is at the same time a science and an art.”

Dr. Ana Aslan

INTRODUCTION

The aging process has been a focus of debate since ancient times. Although its scientific aspects were undefined within the medical disciplines for most of the twentieth century, we have finally arrived in a fascinating era of medicine, where gerontology is a respected branch of science and its application in geriatric medicine is well accepted. Our contemporary society has witnessed two essential trends; the aging population on one hand and the technical progress and knowledge expansion on the other. The importance of the former trend is described best by Ursula Lehr, 1997–1998 chair of the German Society of Gerontology and Geriatrics (G&G): “We are living in a graying world and the demographic change is a challenge to the individual, the society, the economy, to politics and sciences.”1

Romania has a tradition of more than 100 years of unique organizational approach in fostering scientific concepts and progresses in the field of G&G, which today are proven to be evidence-based. Romanian scientists have made novel contributions in the clinical, biological, psycho-social aspects of G&G. Throughout this paper, we are highlighting these contributions, and in particular, we are focusing on the contributions made by Prof. Ana Aslan, a remarkable historical figure in promoting G&G nationally and internationally.

Role of Romanian Scientists in Foundation of G&G Worldwide

Gheorghe Marinescu (1863–1938) and Constantin Ion Parhon (1874–1969) are considered “the iconography” of the Romanian gerontology.2 Their scientific contributions, together with those of non-Romanian scientists (such as Christoph Wilhelm Hufeland, Charles Brown-Sequard, Jean-Martin Charcot, Alexander Comfort, Marjorie Warren, Nathan W. Shock, Verzar Frederic, Bernard Isaacs, Bourliere, F. Recherches, Enrico Greppi, and Herman Denham) were at the core of scientific G&G in the world.

Marinescu studied and reported on the various aspects of neural deterioration and senile plaque formation in the brain.3–5 His research extended into the causes of aging. In 1900, during his time in Paris, he published a paper on the mechanism of senility and death of neural cells.6 He discussed the role of oxidative stress in the aging of the colloid cells, fifty-six years before Denham Harman, “the father of the free radical theory of aging,” put forth his theory.

Since 1910, Parhon consolidated his clinical research and historical vision of the new specialty of gerontology.2 Their scientific contributions, together with those of non-Romanian scientists (such as Christoph Wilhelm Hufeland, Charles Brown-Sequard, Jean-Martin Charcot, Alexander Comfort, Marjorie Warren, Nathan W. Shock, Verzar Frederic, Bernard Isaacs, Bourliere, F. Recherches, Enrico Greppi, and Herman Denham) were at the core of scientific G&G in the world.

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Since 1910, Parhon consolidated his clinical research and historical vision of the new specialty of gerontology. In 1956, he founded the Geriatric Society of Medical Sciences in Romania, which was affiliated with the International Society of Gerontology. In 1966, the name of the society was changed to The Society of Gerontology.3

The Foundation of the First Institute of Geriatrics in Bucharest, Recognized by The World Health Organization as a Model for its Unique Organization and Structure

The foundation of the Institute of Geriatrics in Bucharest represented a cornerstone for the Romanian gerontology be...
cause it was the first institute of this kind in the entire world. Prof. Parhon was the founder of the first institute of G&G. In his paper, “Biologia vârstelor,” he gave a synthesis of relevant studies and concepts; he considered aging to be a process taking place throughout one’s entire lifespan. In addition, he introduced the terminology of “ilikibiology,” a branch of biology concerning the process of aging, encompassing studies on growth, development, maturity, and senility in its natural sequence (Figure 1).3,8

At its inception, The Institute of Geriatrics, containing one experimental and two clinical divisions, was initially named by Parhon “The Experimental Institute of Geriatrics.” The establishment of this institute took place in 1952, two years after the first world congress was held on this emerging medical discipline in Liege, Belgium in 1950. This coincided with the foundation of the International Association of Gerontology. Dr. Alexandru Ciuca˘ (1921–2013) took initiative to organize the section of social gerontology within the institute in 1958. The overall systematic approach of the institute was reviewed and debated in Symposium of Gerontology, held by the World Health Organization in Kiev in 1963.

On April 2nd, 1974, The Institute of Geriatrics in Bucharest evolved into the The National Institute of Gerontology and Geriatrics (Figure 2).3 This evolution was the result of a well-thought strategy put forth by Ciucă which took into account the demographic impact of aging phenomena within the general population and its major implications in the medical, social, and economic arenas.3 He organized new laboratories that focused on clinical and biological research, and a new department of medical statistics. He also developed a system to record and process patients’ data. He founded a new outpatient clinic in the middle of the Romanian capital. A multidisciplinary team of doctors, researchers, biochemists, biologists, economists, demographic specialists, and psychologists was recruited not only to provide the medical assistance to the aging population, but also to research various aspects of aging.

**Romanian Scientists Raising Fundamental Scientific Questions in the Field of G&G**

The 20th century represented a crucial time for the Romanian scientists to raise some fundamental questions on the subject of G&G: Should Gerontology be a distinct medical entity? If Gerontology was a distinct entity, then how best to define it? How do we understand the aging process? What does it mean to be old? If aging is a normal physiological process, then what are the clinical, physiological, biochemical, hematological, and immunological criteria for defining this process? And if it is a disease, what are the symptoms, diagnostic criteria, and treatment of this disease? Can we consider gerontopharmacotherapy as a legitimate branch of pharmacology? Do we need to have a distinct medical training program for G&G versus internal medicine?

From the beginning, the Romanian school of thought unanimously agreed that G&G should be a distinct discipline. They made solid scientific arguments based on clinical and experimental data to elaborate on the content and definition of such distinct specialty.2,3 Dr. Corneliu David (Figure 3), known as “the brain” of the new institute of G&G in Bucharest, brought a unique perspective to the fundamental concepts of G&G. He was the Deputy Director of the institute between 1952–1974. Dr. David supervised the teams of researchers of the institute concentrating on two important aspects: (a) the study of each decade of aging beginning from...
the age of 40, with respect to physiology, biochemistry, morphology, and anatomo-pathology, and (b) the therapy of aging based on clinical and experimental studies. He also coordinated formation of the medical teams for geronto-cardiology, geronto-nephrology, geronto-pneumology, geronto-hematology, geronto-reumathology, etc. His efforts brought a new era of learning where new indicators of normal aging of different organs and systems in the body were described, as the normal aging process was outlined and its scientific concept consolidated. In numerous scientific papers published from 1960 to 1985, Romanian scientists emphasized the multidisciplinary nature of gerontology. One such notable example was the chapter “Geriatrics – A Multi and Interdisciplinary Specialty” from the book entitled “Geriatrics” published in Bucharest in 1982.

The First Interdisciplinary Congress of G&G took place in Brighten, England in 1987. One year later, in June of 1988, the International Congress of G&G was held in Bucharest, Romania. The Romanian scientists that organized the event received an important letter of acknowledgment signed by Prof. Dmitri F. Cebotarev, President of the International Association of Gerontology; and Prof. O.V. Korkusko, Head of the Clinical Department of G&G Institute in Kiev. The letter highlighted the high scientific level of the Bucharest congress, a symbole for the Romanian contributions in defining the fundamentals of G&G as a distinct specialty within the medical field.3

Unfortunately, all these critical contributions remained unacknowledged at local, national level due to the Communist regime that governed Romania at the time. Since 1960, sustained efforts were made for the approval of a distinct discipline and department of gerontology in Romania. After 40 years, the efforts culminated into a reality in 1992. In 2005, a mandatory course for G&G was incorporated into the training curriculum for the medical students of ‘Carol 
In 1959, she was appointed Aslan’s formidable presence in the field of G&G. In 1952, while in Bucharest, she took over the position of Director of the First World Geriatric Institute. In 1958, she was appointed as General Director of the National Institute of G&G. Aslan’s formidable presence in the field impressed those that worked closely with her. Born in Braia, Romania on January 1st, 1897, Aslan relied on her courage, stamina, and intelligence to aid her in a long career of studying geriatric treatment and the fight against aging. She completed her medical degree at the University of Bucharest (1915–1922) and specialized in cardiology. From 1945 to 1949, she was the Professor of Internal Medicine at the Faculty of Medicine in Timisoara. In 1959, she was appointed the Chairman of Preventive Medicine by the World Health Organization. At the same time, the G&G Institute in Bucharest developed in leaps and bounds with Aslan’s managerial and leadership abilities. She was considered a “maestro” of marketing. She would flood the scientific arena with great ideas and her contributions were valued by many in the scientific community. Aslan published more than 300 scientific papers and received many international awards and distinctions for her industrious contribution to anti-aging research. Among honors that she received were:

- “Cross of Merit,” First Class of the Order of Merit, Germany, 1971
- “Cavalier de la Nouvelle Europe” Prize Oscar and “Merito della Republica,” Italy, 1973
- “Honorary Foreign Citizen and Honorary Professor of Sciences,” Philippines, 1978
- “Member Honoris Causa” Diploma of the Bohem-Slovakian Society of Gerontology; Professor Honores Causa and Doctor Emeritus of Braganza Paulista University (Brazil), 1981
- “Leon Bernard” Prize (important distinction granted by the World Health Organization, Geneva, upon nomination for contributions in the development of social gerontology), 1982

Beginning from 1953, Aslan dedicated her research to the study of the effect of Novocain in the treatment of aging. She is credited as giving the elderly hope that they could comfortably prolong their lifespan. Aslan’s career culminated in the development of Gerovital H3 (1956) and Aslavitel (1961), products that brought her international reputation. In 1992, the National Institute of Gerontology of Bucharest dedicated their building to her in recognition of her passion and dedication to the discipline.

During her life, Aslan demonstrated a special empathy and compassion for elderly, treating many of them in her clinic, regardless of their financial situation. She passed away in 1988, but is remembered by many as the “lady-legend” of the Romanian gerontology. She was a restless international voice, dedicated to improving the life of the elderly, not only in Romania but all over the world. She had a remarkable understanding and appreciation for beauty and culture. Once, while visiting Hippocrates’ grave she exclaimed: “I now realize how small I am.” Aslan remains an ambassador of G&G of Romania to this day.

**CONFLICT OF INTEREST STATEMENT**

The author has no conflict of interest to disclose.

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