

## An alliance between universities, institutions and associations to promote gender-specific medicine

In Italy, gender medicine is slowly but steadily starting to establish itself at multiple levels, despite obvious communication shortcomings, which we will discuss in greater detail in the future issues of the *Italian Journal of Gender-Specific Medicine*, and the resulting extremely poor knowledge of the meaning and use of gender medicine among ordinary people and even among healthcare providers. This time, we are pleased to report some interesting recent initiatives which have attracted not only researchers and clinicians of various medical branches, but also a large number of young Medicine and Surgery students and residents.

In Rome, the National Institute of Health (*Istituto Superiore di Sanità – ISS*), in collaboration with the Society for Gender-specific Medicine in Neuroscience, organised and hosted a highly specialised workshop entitled “A gender approach in neuroscience” led by two ISS researchers: Dr. Anna Maria Confaloni, biologist, supported by Dr. Nicola Vanacore, neurologist. The aim was to take stock of the state of research with regard to gender differences in some of the most serious neurodegenerative diseases, and particularly in Alzheimer’s dementia. During the event, which met unexpected success, the speakers focused on the importance of gender differences in a future perspective increasingly based on personalised treatments. Gender differences are significant in Alzheimer’s disease: to quote but one example, prevalence in women (7.3%) is more than twice that of men; as to incidence, 13 new cases per year per 1,000 people are recorded among women, vs. 7 new cases per year per 1,000 men. A particularly interesting highlight of the one-day workshop was the part dedicated to research on biomarkers as possible indicators of the onset of a neurodegenerative disease. Basic research reveals the existence of gender differences with respect to biomarkers. Currently, studies focus on a possible biomarker indicating memory loss, which precedes full-blown Alzheimer’s disease. Memory loss should be stopped as soon as it first appears, in order to slow down the degenerative process.

The annual conference of the Italian Group for Health and Gender (GISeG), held at the Hotel Palace in Bari, saw the attendance of a great number of participants of different medical specialisations. The intense two-day meeting was chaired by Dr. Anna Maria Moretti, a key driver of this initiative. The GISeG project was started a few years ago in Apulia, one of the first Italian

regions to show interest in gender medicine thanks to the sensitivity of local government to this theme.

A regional working group has been active for several years now to deal with both the managerial and the medical aspects of gender medicine, and numerous training initiatives have been implemented to raise awareness among the younger generation of doctors. Many topics have been addressed, including gender and longevity; gender pharmacology; respiratory diseases in a gender perspective; bone problems such as fractures of the humerus; gender medicine as a factor in support of fairness and sustainability of the National Health Service, and lastly the introduction of bill no. 3603 on provisions to facilitate the application and dissemination of gender medicine in Italy. A noteworthy presentation by Giovanni Biggio, Professor Emeritus of neuropsychopharmacology at the University of Cagliari, discussed the peculiarities of the female brain compared to the male one. A different biological clock regulates the functioning of the brain in women, as shown by the fact that the female brain becomes fully developed at age 22-23, while males reach full development a few years later.

The death of Umberto Veronesi has been a great loss, and we felt it was our duty to commemorate him as a man and a scientist with a tribute by Chiara Tonelli<sup>1</sup>, a geneticist at the University of Milan and President of the Scientific committee of the namesake Foundation. Always an attentive and active participant in the international scientific and cultural debate, Veronesi often said that science should come out of laboratories and meet real people. He has left us an invaluable moral legacy: the view of each person as the central subject of the therapeutic process, and the scientific method as an antidote to counter antiscientific trends.

In this issue of our publication, Rita Bianchieri and Silvia Cervia<sup>2</sup> of the Pisa University’s Department of Political Science discuss the project named TRIGGER (Transforming Institutions by Gendering Contents and Gaining Equality in Research), funded by the European Commission as part of framework programme 7 and co-funded by 5 universities of 5 European countries, including the University of Pisa. The project is the first initiative to combine the issue of gender equality in scientific careers, specifically in the academic world, and the genderization of knowledge in scientific research.

The two scientists describe the work carried out by the TRIGGER project in these areas, and reach a conclu-

sion that opens up different perspectives: recovering the female point of view facilitates women's careers, promotes innovation in scientific research, and also brings social benefits. Another contributor from the academic world, Luigi Milella<sup>3</sup> (University of Basilicata), with Lissiana Vignola and Delia Colombo, presents the Second Level Master in Gender Medicine and Health for the academic year 2016-2017, established by the Science Department of the University of Basilicata, in collaboration with the Basilicata Region, the Medical Board of the Provinces of Potenza and Matera, the Italian Association of Women Doctors and UNICRI – United Nations Inter-regional Crime and Justice Research Institute.

Davide Croce (Castellanza Cattaneo University) et al.<sup>4</sup> report the results of a study that investigated gender differences in a cohort of HIV-positive patients in Lombardy. The differences were assessed in terms of achievement of immunological and virological control, adherence to treatment, quality of life as measured by QALY, and resource absorption for the daily management of patients within the diagnostic and therapeutic process. The data show substantial male-female comparability of efficacy results with good immunological and virological conditions. The same does not apply to compliance and quality of life. The study provides evidence useful to personalize treatment on the basis of patients' gender.

Anna Ruggieri, Walter Malorni and Walter Ricciardi<sup>5</sup> of the National Institute of Health focus on gender differences in response to anti-viral vaccines. According to the authors, gender affects susceptibility to viral infectious diseases and the immune response to them. Women have more intense immune responses than men and reach higher protective antibody titers than their male peers, although they suffer from more frequent adverse reactions to vaccines.

A review by Stefano Savonitto (Cardiovascular department of the Lecco Manzoni Hospital) et al.<sup>6</sup> introduces the much-discussed relationship between menopause, atherosclerosis and cardiovascular risk. As is well-known, ischemic heart disease is the leading cause of death among women; however, before the age of 75, men die more frequently. Women's cardiovascular system is believed to be protected by estrogens at least until the pre-menopausal age. Researchers wonder whether a premature menopause may expose women to a higher risk of cardiovascular events. This appears to be unlikely, as Savonitto also explains in the interview<sup>7</sup> published in this same issue.

Gender differences in lung cancer are investigated by Silvia Novello (Department of Oncology of the San Lu-

igi Hospital in Regione Gonzole) et al.<sup>8</sup> Lung cancer is the leading cause of death in both sexes in developed countries. However, non-smoking women develop lung cancer more frequently than non-smoking men. Differences are also found in the biological behaviour of the disease in men and women, partly due to the hormonal environment, and in survival rates, which are higher among women, regardless of stage of the disease, histology and treatments. It is essential to be aware of gender differences in order to identify genetic or hormonal alterations as potential targets for gender-specific personalised therapies. Lastly, the *Italian Journal of Gender-Specific Medicine* publishes an interview with Paola Boldrini<sup>9</sup>, Member of the Italian Parliament, on the bill concerning gender medicine she has recently submitted.

We hope you enjoy reading this issue.

## References

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