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PLENARY LECTURES
A medical manuscript with the title “Dynameron” is kept in the Marciana National Library of Venice (Cod. gr. Z. 295) and originates from a text initially written in Greek by a physician named Aelius Promotus, who lived and worked in Alexandria (2nd century AD). This manuscript should not be confused with the enormous “Mega Dynameron” of Nicolaos Myrepsos, containing 2667 recipes, which was written in the 13th century. “Dynameron” contains 130 chapters dealing with different diseases and their treatment. The recipes related to Nephrology are various mixtures of about 80 herbs. In addition, there are nine ingredients of animal origin and two minerals. The large number of ingredients used in each recipe implies that Aelius Promotus was a follower of the so called “empiric school”, although in his work are easily recognizable also influences from other medical sects. Many of the herbal ingredients proposed by the author are known for their diuretic, spasmolytic, analgesic and antiseptic properties. Hence, they are suitable for treating nephrolithiasis, stranguria, dysuria, hematuria, as well as inflammations of the kidneys and the urinary bladder. Some of the recipes refer to ingredients that cannot be granted any apparent therapeutic reasoning. Additionally, there are a few examples of treatments, which seem more like superstitious rituals. However, when “Dynameron” is evaluated as a whole, the conclusion is that Aelius Promotus was a competent practicing physician with great expertise, typical of the famous medical tradition of Alexandria during the late Roman era. There is evidence that “Dynameron” was highly estimated and was copied several times thereafter, in order to serve as a therapeutic index for the common ailments a physician might encounter in his everyday practice. We elaborate on the treatise’s origin, its popularity and on the validity of the substances proposed for treatment of renal ailments.
ting within extracorporeal circuits). At Hopkins, working in Abel’s lab with J Geraghty, Rowntree had already introduced a test for overall renal excretion, based on the excretion of phenolsulphthalein (PSP), which was still in wide use into the 1960s. This was the standard test until creatinine excretion and GFR approximations took over. He then worked with Norman Keith (1885-1976), still in Baltimore, and described a widely-used dilution method for blood volume, and together wrote a book on the subject. After a period in service in WWI studying aviation physiology, he returned to the Mayo Clinic as joint chief of medicine: whilst at the Hopkins he was a member of teams led by others, now he took charge, remaining in the Mayo for 13 1/2 years until 1932, and publishing over 100 papers, a number on the now nascent nephrology. Apart from the clotting studies already mentioned, he described in 1923 the use of sodium iodide as a means of visualizing the urinary tract, leading to the IVU which remained the standard for some 40 years. He attracted Keith to move to the Mayo, resulting in a seminal description of lupus nephritis, especially its histology, in 1922. Finally, with AW Adson he investigated the use of lumbar sympathectomy for severe hypertension in 1925. He had established amongst other divisions a renal service headed by Keith. Of his many other studies in general medicine perhaps the most notable was the use of adrenal extracts for adrenal failure, after his return East in 1931 to Philadelphia where he published a further 47 papers. He spent WWII working in the administrative side of the armed forces, then retired. He lived to see clinical dialysis and transplantation, and the emergence of Nephrology. In 1958 a year before he died he published a rambling part-autobiography and part-history of American medicine in the 1920s and 1930s, Amid masters of twentieth century medicine.

EXPLORING THE STRUCTURE OF THE KIDNEY IN ANTIQUITY
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Medico-historical research on the function of the kidneys in Antiquity has increased over the past decades. However productive this renewed activity might have been, it has not explored thus far the research made in Antiquity to explore the structure of the kidneys. This presentation will attempt to determine what ancient physicians from Hippocrates in the 5th century BCE to Galen in the 2nd/early 3rd century CE knew of the anatomical structure of the kidneys (if anything) and how they did so. Since no anatomical illustrations have been preserved (assuming that they existed), this presentation will rely on the only available material, that is, the treatises by the Hippocratic physicians and Galen, together with all the other from the 5th century BCE to the 3rd CE, and it will rely on a systematic screening of the full text of these works in the original language to possibly trace relevant passages and reconstruct the ancient knowledge of kidneys, in a dynamic way, including the time and places where major or basic discoveries took place. The research leading to this presentation is expected to bring to light an anatomical research activity remained unnoticed thus far.
REFERENCES TO URINARY TRACT DISEASES IN MIHI COMPETIT BY THOMAS OF WROCŁAW (1297-1378)

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Contrary to the opinions about the weakness of mediaeval medicine, there is a lot of data against such views. These include the emergence of Europe’s first universities educating doctors such as Arnaldo De Villanova in France and others. The next generation of outstanding doctors includes Thomas of Wrocław born in this Silesian town in 1297. At the age of 16 he started education at the university in Montpellier, France where he met his renowned teachers: Peter Abano, Henry de Mondeville, or Bernard de Gordon. After completing his studies in Montpellier, he continued his scientific trip to Toledo (Spain), Salerno, Padua, Bologna and Rome (Italy) and to Oxford (England).

Having earned a pan-European reputation, despite numerous job offers from universities, he returned to his homeland to become a court doctor for John of Bohemia and Charles IV, king of Bohemia and the Holy Roman Emperor. He died in Wrocław in 1378 and was buried at the nearby St.Vincent Abbey. Thomas is known to have written a few works, yet Mihi Competit, completed at the age of 63, must be the most prominent. It comprises 4 parts: Practica Sanitatis, Aggregatum, Antidotarium and Practica Medicinalis. Modern nephrologists might find the last one the most interesting as its chapters no. 81-87 of part 112 refer to urinary tract diseases. The titles of the subsequent parts are: De debilitate et dolore renum (On Renal Disease and Pain), De apostemate renum (On Renal Abscess), De ulceribus renum et vesice (On Kidney and Bladder Ulcers), De lapide renum et vesice (On Kidney and Bladder Stone), De difficultate mingendi (On Problems with Urination), De diampne (On Urinary Incontinence) and De diabete (On Diabetes Insipidus).

There are no known translations of the Latin-written Michi Competit into modern languages. Finding some of the views depicted in the work historically interesting, the authors undertook to translate it aiming to present it to a wider audience.

LUPUS NEPHRITIS: A HISTORICAL APPRAISAL

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It all started as a nondescript skin disease. First defined by Hippocrates as ‘herpes esthiomenos’ for any destructive skin lesion that spread like a crawling snake. The term ‘lupus’, derived from Latin for wolf, entered the medical lexicon in the 10th century, after deforestations brought wolves in close contact with farmers and the similarity of wolf bites to the still nonspecific ulcerative and necrotic skin lesions noted. It was the differentiation of selected erythematous butterfly rashes from the necrotic skin lesions of cancer and tuberculosis in 1828 that led to their characterization as ‘lupus erythematosus’ in 1850, a nomenclature still in use. The systemic manifestation of this new entity were noted in 1872 leading to their being termed “dis-
seminated lupus erythematosus”, and shortly thereafter by the preferred “systemic lupus erythematosus” that prevails to this day. Albuminuria and renal abnormalities were noted in cases of systemic lupus erythematosus early on but were not characterized as ‘lupus nephritis’ until 1902, based on post-mortem studies. Refinements in the description of lupus nephritis were made after the introduction of needle kidney biopsies in 1951, and its varied renal morphologic features elucidated by electron microscopic and immunofluorescent studies thereafter. These were then classified in 1975, expanded in 2013 and continue to be refined.

**NEPHROLOGY A DISCIPLINE EVOLVING INTO COMPLEXITY:**
**BETWEEN COMPLEX SYSTEMS AND PHILOSOPHY**

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In the last quarter of the past century a growing opposition to specialization occurred in the course of a quest for unity of culture. To address the problem of fragmentation that plagues specialization, a new complex method of interdisciplinary teaching not based on disciplines, but crossing specialities was adopted. The method flourished thanks to (i) the foundation in 1984 of the Santa Fe Institute in New Mexico, inspired by Murray Gellman and (ii) the publication in 1994 of the Charter of Transdisciplinarity signed by Lima de Freitas, Edgar Morin and Basarab Nicholescu. Complexity emerged from 3 main streams: cybernetics, general systems theory and dynamical system theory. Now it is seen as an indispensable tool to advance science without losing the role of specialties that are of paramount importance for solving practical problems.

Disciplines play a great role in disseminating and furthering knowledge. They are born—without aiming to eternity—in order to warrant the originality of the scientists who existed, exist and will exist in the future. In the quest for originality, a vital priority in the world scientific enterprise they are forced to scrape smaller and smaller niches where they can protect themselves and their contributions. Disciplines however are like fractals their boundary regions are zones where exchanges are wider than those occurring in their own internal zones.

“Nephrology is one of the flowers of medical biology and medical pharmacology, a flower permeated by genetic and molecular biology”(Richet). Nephrology, born in the fifties of last century, is now charged with the responsibility to answer the health demands of more than 12% of the world population. It holds all the characteristics of a discipline born in the fertile world of complexity and continuously expanding its boundaries into that of other disciplines. Nephrology is characterized by the “the exponential information overload being generated. The pattern began in the 1960s that has continued and is magnified by the increasing number of specialty journals that have appeared since then” (Eknoyan). It is characterized by a unique exponential growth of information generated and by the capability of matching the challenges of big data algorithms and omics platforms. The most successful contributions of nephrology were driven by 2 main ideas: (i) The identification of CKD by the impact of the KDOQI (Kidney Disease Outcomes Quality Initiative) guidelines that defined CKD based on estimated glomerular filtration rate (Eknoyan) and (ii) the identification of uremia as a fatal systemic disease (Zoccali).