

## ON BEING A PHARMACOLOGIST

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**Doi:** 10.36118/pharmadvances.2021.16

What is the role of pharmacologists in modern medicine? This is one of the questions this issue of *Pharmadvances* addresses. Of note, Grisalfi *et al.* (1), in an opinion paper, call for public support for Pharmacology and awareness of the importance of this science in providing advice and expertise. It would, indeed, be very important to pharmacologists to be recognized as indispensable scientists and opinion leaders, especially with the advent of new, exciting technologies. In this respect, the European Certified Pharmacologist (EuCP) initiative is a laudable step forward.

In keeping with the aforementioned, it appears now crucial to foster bi-directional interactions with patients and their associations. Clinical pharmacologists often face the issue of translating basic research into actionable therapeutic interventions. It goes without saying that any success (or failure) strongly depends on previous experience. In other words, pharmacovigilance and pharmacosurveillance are very useful and essential tools to fine-tune therapies and provide indications for future research (2). Bandiera *et al.* (3) and Raschi *et al.* (4) in the fast-moving (5, 6, 7) oncology arena and Menardi *et al.* (8) in the COVID-19 one provide notable examples of how proper interactions with patients and good use of databases can greatly advance therapeutic efficacy. This can only improve in the next few years, when artificial intelligence, machine learning, new statistical tools to analyze large amounts of data, *etc.* (9) will better integrate basic and clinical research with real world evidence (10).

Being a pharmacologist also means having broad views of human pathology and of the many molecules available to address health issues. In consonance with the mission of the recently-established IUPHAR Mediterranean Group of Natural Products Pharmacology – IMGNPP (and take

note that on Feb 24-26/2022 Naples, Italy, will host the Joint meeting on Natural Products Pharmacology - SIF - SIPHAR – IMGNPP), two papers review the pharmacological properties of (poly)phenols, namely flavonoids (11) and quercetin (12). Even if often viewed as mere herbal substances, these molecules have a broad spectrum of action and could and should be studied in details, including human trials.

In summary, being a pharmacologist mainly means having an open mind and use all the available utensils to advance research and improve therapy. There is no better way to disseminate your results and ideas than publish them in International pharmacology journals such as PharmAdvances.

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