UNIVERSITÀ DEGLI STUDI DI MILANO

SELEZIONE PUBBLICA, PER TITOLI ED ESAMI, PER IL RECLUTAMENTO DI N. 1 UNITÀ DI PERSONALE CON RAPPORTO DI LAVORO SUBORDINATO A TEMPO DETERMINATO DI CATEGORIA C - AREA TECNICA, TECNICO-SCIENTIFICA ED ELABORAZIONE DATI, PRESSO L'UNIVERSITÀ DEGLI STUDI DI MILANO - DIPARTIMENTO DI SCIENZE FARMACOLOGICHE E BIOMOLECOLARI – codice 21273

La Commissione giudicatrice della selezione, nominata con determina n. 2150 del 16/02/2021, così composta:

Prof. Dell'Agli Mario – Presidente

Prof.ssa Molteni Raffaella – Componente

Sig.ra Meda Clara – Componente

Sig.ra Bandera Tiziana - Segretaria

comunica i seguenti quesiti relativi alla prova orale

Gruppo di quesiti n. 1

1) Descrivere cosa si intende per frazionamento bio-guidato.

2) Lettura e traduzione di un testo in inglese:

The Coronavirus Disease 2019 (COVID-19) has been declared as a global pandemic, but specific medicines and vaccines are still being developed. In China, interventional therapies with traditional Chinese medicine for COVID-19 have achieved significant clinical efficacies, but the underlying pharmacological mechanisms are still unclear. This article reviewed the etiology of COVID-19 and clinical efficacy. Both network pharmacological study and literature search were used to demonstrate the possible action mechanisms of Chinese medicines in treating COVID-19. We found that Chinese medicines played the role of antivirus, anti-inflammation and immunoregulation, and target organs protection in the management of COVID-19 by multiple components acting on multiple targets at multiple pathways. AEC2 and 3CL protein could be the direct targets for inhibiting severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Quercetin, kaempferol, luteolin, isorhamnetin, baicalein, naringenin, and wogonin could be the main active ingredients of Chinese medicines for the management of COVID-19 by targeting on AEC2 and 3CL protein and inhibiting inflammatory mediators, regulating immunity, and eliminating free radicals through COX-2, CASP3, IL-6, MAPK1, MAPK14, MAPK8, and REAL in the signaling pathways of IL-17, arachidonic acid, HIF-1, NF-κB, Ras, and TNF. (*tratto da Huang et al., Pharmacological research, 158, 2020, 104939*).

Gruppo di quesiti n. 2

1) Descrivere cosa si intende per titolazione di un prodotto naturale.

2) Lettura e traduzione di un testo in inglese:

Inflammation is commonly characterized as a defensive and protective reaction of the body to various exogenous or endogenous stimuli, which aims to maintain the body health. Punica granatum (pomegranate) and its constituent ellagic acid (EA) are recently more taken into accounts since their promising pharmacological effects. Therefore, we aimed to obtain a comprehensive review regarding anti-inflammatory, anticancer, and antioxidant activities of both pomegranate and EA and their possible involved mechanisms. In the procedure, scientific databases, including Web of Science, PubMed, Scopus, and Google Scholar, were searched in the English language, until the end of January 2019. Pomegranate belonging to the Punicaceae has been used for medical purposes from ancient and in different cultures. Several studies have also supported that EA is the major active compound of pomegranate and possesses antimutagenic, anti-inflammatory, antifibrosis, anticancer, and antiaging properties. It has been suggested

that pomegranate and EA possess promising immunomodulatory effects in preclinical models as well as human studies through regulation of the T-cell function and suppressing humoral immunity. Hopefully, we wish that this review and information could be helpful for designing further experiments to investigate the potential protective effects of pomegranate and EA. (*tratto da Rahimi et al., Phytotherapy research, 34, 685-720, 2020*).

Milano, 25 marzo 2021

Prof. Dell'Agli Mario – Presidente

Prof.ssa Molteni Raffaella – Componente

Sig.ra Meda Clara – Componente

Sig.ra Bandera Tiziana - Segretaria