CONCORSO PUBBLICO, PER ESAMI, A N. 1 POSTO DI CATEGORIA D, POSIZIONE ECONOMICA D1, AREA TECNICA, TECNICO-SCIENTIFICA ED ELABORAZIONE DATI, PER LE ESIGENZE DEL CENTRO INTERDIPARTIMENTALE DI RICERCA IN SCIENZE IMMUNOLOGICHE DI BASE E CLINICHE (CISI) DELL'UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II (COD.RIF. 2305), INDETTO CON DECRETO DEL DIRETTORE GENERALE N. 297 DEL 22.03.2023

Prova orale del 19/07/2023

TRACCE NON ESTRATTE

PROVA 5

Primo quesito

Il/la Candidato/a descriva le applicazioni tecniche della "High Content imaging Analysis"

Secondo quesito

Il/La candidato/a illustri l'utilizzo della modalità "revisione" all'interno del software Word della suite Microsoft Office

Terzo quesito

In some inflammatory conditions, a subset of pro-inflammatory neutrophils termed low density granulocytes (LDGs) has been described, defined by density rather than gene expression or protein content (Box 3). These cells have a pathogenic phenotype and functions that differ from normal density neutrophils in several ways[27,28,29]. For example, LDGs produce higher levels of some cytokines, including type I interferons, and are prone to increased NET formation with vasculopathic and immunostimulatory features[30]. LDGs, as defined by density gradient, contain a mix of cells that are at various transcriptional states, likely representing different origin, state of maturation and/or effector functions[13,29,31]. These cells are discussed in more detail below in relation to disease states such as systemic lupus erythematosus (SLE). Various other neutrophil subsets have also been described in various disease states, such as cancer and sepsis, and are reviewed elsewhere[12,32,33].

Primo quesito

Il/la Candidato/a descriva la valutazione dei "Neutrophil Extracellular Traps" (NETs) mediante "High Content imaging analysis"

Secondo quesito

Il/La candidato/a illustri i passaggi per la creazione di un grafico all'interno del software Excel della suite Microsoft Office

Terzo quesito

When neutrophils encounter a danger signal, they respond in varying ways depending on their surface receptor composition and intracellular protein content. The heterogeneity of neutrophils is clear as there is considerable variability in the response to a particular stimulus, likely reflecting a diverse pool of neutrophils in circulation[12,34]. Neutrophil activation has various functional effects, including migration into tissues, where neutrophils can release granule contents, such as neutrophil elastase, collagenase and lysozyme, to disrupt the extracellular matrix and attack invading pathogens (Fig. 1). In addition, neutrophil migration into inflamed tissues, such as the inflamed joint in patients with rheumatoid arthritis, is considered a strong driver of changes in gene and protein expression, creating further complexity in terms of neutrophil heterogeneity between blood and tissues[35].

SU ORDINE DEL PRESIDENTE

F.to Il segretario

Sig. Mario De Matteis