The neXt-50 Challenge

Dear Principal Investigator Chromosome Leaders,

Progress on completing the human proteome continues with 16,545 PE1 proteins listed in neXtProt (25-8-2016 release). To galvanize activities aimed to hasten the completion of a high resolution draft of the human proteome the C-HPP Executive and HUPO Executive have embraced the initiative now titled: "**The neXt-50 Challenge**".

The neXt-50 Challenge is for each Chromosome Group to plan to identify 50 or more missing proteins from their respective chromosome in time for HUPO-2018 and for the Journal of Proteome Research Special Issue in 2018. Of course, some lucky chromosome teams have fewer than 50 missing proteins remaining on their chromosome! But since proteomics analyses are chromosome agnostic, we trust that these teams will not sit back, but aim to not only complete their missing proteins but perhaps also contribute to other chromosome efforts. Which chromosome will be the first to complete?

The Executive Committee of the C-HPP are requesting each team to submit by December 23, 2016 an outline of their plans to do so. Please also add the plans to the Wiki to facilitate information transfer: http://c-hpp.webhosting.rug.nl/tiki-index.php?page=Group%20composition

The report should consist of (**Essential*):

***Chromosome Number:**

***PIC Leaders:**

***Contributing labs (Lab Heads named with affiliation University/Institute/Company):**

Major lab members or partners contributing to the neXt50:

***Status of the Chromosome "parts list":**
(from https://www.nextprot.org/about/protein-existence or the neXtProt ftp site (ftp://ftp.nextprot.org/pub/current_release/custom/hpp/), "chromosome files" that were specially designed for the C-HPP project. Each chromosome file lists all the entries mapped to the considered chromosome, along with their PE status. You can easily retrieve the missing entries from these files by simply eliminating the PE1 and PE5 entries.)

***Confirmation that PIC and C-HPP lab members have read:**
i) Deutsch et al 2016: Human Proteome Project Mass Spectrometry Data Interpretation Guidelines 2.1.
ii) Duek et al 2016: Missing Protein Landscape of Human Chromosomes 2 and 14: Progress and Current Status.
iii) Omenn et al 2016: Metrics for the Human Proteome Project 2016: Progress on Identifying and Characterizing the Human Proteome, Including Post-Translational Modifications.
iv) Vandenbrouck et al 2016: Looking for Missing Proteins in the Proteome of Human Spermatozoa: An Update.

***Step by step milestone plan to find, identify and validate MPs:**

***Milestone dates:**

Lets go!

Chris Overall