Structured expert judgement of COVID-19

Jouni Tuomisto

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library(jsonlite)  
  
dat <- fromJSON("https://connect.medrxiv.org/relate/collection\_json.php?grp=181")[[3]] # All COVID-19 papers from MedRxiv and BioRxiv.  
  
rels <- data.frame()  
for(i in 1:nrow(dat)) {  
 tmp <- dat$rel\_authors[[i]]  
 tmp <- merge(tmp, dat[i, colnames(dat) != "rel\_authors"])  
 rels <- rbind(rels, tmp)  
}  
rels$author\_inst\_short <- substr(rels$author\_inst,1,45)

cat("MedRxiv and BioRxiv contain", nrow(dat), "articles and those have", length(unique(rels$author\_name)), "distinct authors (", mean(dat$rel\_num\_authors), "on average).\n")

## MedRxiv and BioRxiv contain 2056 articles and those have 13749 distinct authors ( 8.273833 on average).

auth <- aggregate(rels$author\_name, by = rels[c("author\_name","author\_inst\_short")], FUN=length)  
  
cat("Frequencies of authors by number of publications in MedRxiv or BioRxiv\n")

## Frequencies of authors by number of publications in MedRxiv or BioRxiv

table(auth$x)

##   
## 1 2 3 4 5 6 7 8 9 10 14   
## 14360 892 150 41 18 9 2 4 3 2 1

#auth <- merge(auth[auth$x>4 , ], rels)  
auth[order(-auth$x),c(3,1,2)][1:100,]

## x author\_name author\_inst\_short  
## 4810 14 Gerardo Chowell Georgia State University School of Public Hea  
## 3478 10 Hyeong Sik Ahn Department of Preventive Medicine, Korea Univ  
## 7063 10 Myeong Soo Lee Korea Institute of Oriental Medicine, Daejeon  
## 4117 9 Toshio Fukuoka Emergency and Critical Care Center, the Depar  
## 5329 9 Hiroshi Nishiura Hokkaido University  
## 7104 9 Kenji Mizumoto Kyoto University  
## 4299 8 Yanfang Ma Evidence-based Medicine Center, School of Bas  
## 5191 8 Marc Lipsitch Harvard T.H. Chan School of Public Health  
## 7329 8 Rosalind M Eggo London School of Hygiene & Tropical Medicine  
## 11681 8 Benjamin J Cowling The University of Hong Kong  
## 11415 7 Qi Zhou The First School of Clinical Medicine, Lanzho  
## 11449 7 Lin Yang The Hong Kong Polytechnic University  
## 1666 6 Shi Zhao Chinese University of Hong Kong  
## 5325 6 Andrei R. Akhmetzhanov Hokkaido University  
## 5342 6 Daihai He Hong Kong Polytechnic University  
## 5351 6 Yijun Lou Hong Kong Polytechnic University  
## 6176 6 Chuan Qin Institute of Laboratory Animal Science, Chine  
## 7315 6 Adam J Kucharski London School of Hygiene & Tropical Medicine  
## 8064 6 Tamie Sugawara National Institute of Infectious Diseases, To  
## 8065 6 Yasushi Ohkusa National Institute of Infectious Diseases, To  
## 9616 6 Xufei Luo School of Public Health, Lanzhou University,   
## 1762 5 Dirk Pfeiffer City University of Hong Kong  
## 3073 5 Bo Diao Department of Medical Laboratory Center, Gene  
## 3433 5 Shuya Lu Department of Pediatric, Sichuan Provincial P  
## 4303 5 Yaolong Chen Evidence-based Medicine Center, School of Bas  
## 4582 5 Hongjie Yu Fudan University  
## 5330 5 Katsuma Hayashi Hokkaido University  
## 5334 5 Ryo Kinoshita Hokkaido University  
## 5339 5 Tetsuro Kobayashi Hokkaido University  
## 5340 5 Yichi Yang Hokkaido University  
## 5352 5 Zian Zhuang Hong Kong Polytechnic University  
## 6182 5 Hong Gao Institute of Laboratory Animal Science, Chine  
## 6186 5 Linlin Bao Institute of Laboratory Animal Science, Chine  
## 6195 5 Wei Deng Institute of Laboratory Animal Science, Chine  
## 11737 5 Yuguo Li The University of Hong Kong  
## 11786 5 Lauren Ancel Meyers The University of Texas at Austin  
## 12715 5 pierre magal University of Bordeaux  
## 13544 5 Oliver Pybus University of Oxford  
## 13814 5 Zhanwei Du University of Texas at Austin  
## 638 4 Zhihua Liu Beijing Normal University  
## 1936 4 Jingyue Ju Columbia University  
## 1959 4 Shiv Kumar Columbia University  
## 1960 4 Steffen Jockusch Columbia University  
## 1964 4 Xiaoxu Li Columbia University  
## 3079 4 Yueping Liu Department of Medical Laboratory Center, Gene  
## 3080 4 Zilin Yuan Department of Medical Laboratory Center, Gene  
## 3691 4 Enmei Liu Department of Respiratory Medicine, Children   
## 3696 4 Weiguo Li Department of Respiratory Medicine, Children   
## 3700 4 Zhengxiu Luo Department of Respiratory Medicine, Children   
## 4655 4 XINMIAO FU Fujian Normal University  
## 4662 4 Gang Chen Fujian Provincial Hospital  
## 4746 4 Shangen Zheng General Hospital of Central Theater Command o  
## 4873 4 Changwen Ke Guangdong Provincial Center for Disease Contr  
## 4887 4 Min Kang Guangdong Provincial Center for Disease Contr  
## 5197 4 Rebecca Kahn Harvard T.H. Chan School of Public Health  
## 5333 4 Natalie M. Linton Hokkaido University  
## 5443 4 Weiming Wang Huaiyin Normal University  
## 5984 4 Michael Famulare Institute for Disease Modeling  
## 6152 4 Igor Nesteruk Institute of Hydromechanics National Academy   
## 6160 4 Yuzhang Wu Institute of Immunology, PLA, Third Military   
## 6184 4 Jiangning Liu Institute of Laboratory Animal Science, Chine  
## 6191 4 Qiang Wei Institute of Laboratory Animal Science, Chine  
## 6756 4 Justin Lessler Johns Hopkins Bloomberg School of Public Heal  
## 7370 4 Stefan Flasche London School of Hygiene and Tropical Medicin  
## 7663 4 Jonathan Dushoff McMaster University  
## 8066 4 Yoshiyuki Sugishita National Institute of Infectious Diseases, To  
## 8303 4 Brandi Williamson NIAID  
## 8332 4 Vincent Munster NIAID  
## 8971 4 Sang Woo Park Princeton University  
## 9584 4 Hongjie Yu School of Public Health, Fudan University, Ke  
## 9617 4 Yaolong Chen School of Public Health, Lanzhou University,   
## 10507 4 Hua Qian Southeast University  
## 10529 4 Peihua Cao Southern Medical University  
## 10825 4 Yan Wu State Key Laboratory of Virology, Wuhan Insti  
## 11416 4 Qianling Shi The First School of Clinical Medicine, Lanzho  
## 13880 4 Ashleigh Tuite University of Toronto  
## 13887 4 Isaac Bogoch University of Toronto  
## 13978 4 Matt J Keeling University of Warwick  
## 14031 4 Meei-Li Huang University of Washington  
## 14096 4 Robert Kirchdoerfer University of Wisconsin-Madison  
## 18 3 Final Decision   
## 270 3 Fang-Fang Liu Anhui Medical University  
## 272 3 Hui Zhao Anhui Medical University  
## 273 3 Hui-Xian Xiang Anhui Medical University  
## 274 3 Jun Fei Anhui Medical University  
## 275 3 Lin Fu Anhui Medical University  
## 277 3 Meng-Die Li Anhui Medical University  
## 280 3 Ying Xiang Anhui Medical University  
## 850 3 Kamran Khan BlueDot  
## 1199 3 Junko Kurita Center for Medical Sciences, Ibaraki Prefectu  
## 1268 3 Krista Queen Centers for Disease Control and Prevention  
## 1292 3 Natalie J. Thornburg Centers for Disease Control and Prevention  
## 1765 3 Hsiang-Yu Yuan City University of Hong Kong  
## 1773 3 Qingpeng Zhang City University of Hong Kong  
## 1926 3 Chuanjuan Tao Columbia University  
## 1933 3 James J. Russo Columbia University  
## 1948 3 Minchen Chien Columbia University  
## 2344 3 Marek Ochman Department of Cardiac, Vascular and Endovascu  
## 2629 3 Haidong Kan Department of Environmental Health, School of  
## 2634 3 Weidong Wang Department of Environmental Health, School of

inst <- rels[!duplicated(rels[c("rel\_doi","author\_inst\_short")]) , ]  
inst <- aggregate(inst$author\_inst\_short, by=inst["author\_inst\_short"], FUN=length)  
  
cat("Frequencies of institutes by number of publications in MedRxiv or BioRxiv\n")

## Frequencies of institutes by number of publications in MedRxiv or BioRxiv

table(inst$x)

##   
## 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16   
## 4085 429 125 49 39 25 11 8 15 10 6 6 6 5 1 4   
## 18 20 23 25 34 37   
## 1 1 1 1 1 1

#inst <- merge(inst[inst$x>10 , ], rels)  
inst[order(-inst$x),c(2,1)][1:50,]

## x author\_inst\_short  
## 4408 37 University of Oxford  
## 1 34   
## 3937 25 The University of Hong Kong  
## 1688 23 Fudan University  
## 4504 20 University of Washington  
## 3616 18 Stanford University  
## 2021 16 Imperial College London  
## 2562 16 London School of Hygiene and Tropical Medicin  
## 3186 16 Renmin Hospital of Wuhan University  
## 4814 16 Zhongnan Hospital of Wuhan University  
## 1854 15 Harvard T.H. Chan School of Public Health  
## 1749 14 Georgia State University School of Public Hea  
## 4009 14 Tsinghua University  
## 4362 14 University of Michigan  
## 4467 14 University of Texas at Austin  
## 4482 14 University of Toronto  
## 2 13 -  
## 631 13 Columbia University  
## 1949 13 Huazhong University of Science and Technology  
## 3107 13 Princeton University  
## 4270 13 University of Cambridge  
## 4767 13 Yale University  
## 573 12 City University of Hong Kong  
## 1259 12 Department of Preventive Medicine, Korea Univ  
## 1857 12 Harvard University  
## 3689 12 Sun Yat-sen University  
## 4417 12 University of Pennsylvania  
## 4711 12 Xi'an Jiaotong University  
## 916 11 Department of Epidemiology and Biostatistics,  
## 1327 11 Department of Respiratory and Critical Care M  
## 1996 11 Icahn School of Medicine at Mount Sinai  
## 2522 11 Lanzhou University  
## 2561 11 London School of Hygiene & Tropical Medicine  
## 4675 11 Wuhan Institute of Virology, Chinese Academy   
## 228 10 Beijing Normal University  
## 1531 10 Emergency and Critical Care Center, the Depar  
## 1845 10 Harvard Medical School  
## 1907 10 Hokkaido University  
## 2443 10 King's College London  
## 2463 10 Korea Institute of Oriental Medicine, Daejeon  
## 2623 10 Massachusetts General Hospital  
## 3594 10 Southeast University  
## 3773 10 The Chinese University of Hong Kong  
## 4059 10 Union Hospital, Tongji Medical College, Huazh  
## 541 9 Chinese Academy of Sciences  
## 928 9 Department of Epidemiology, School of Public   
## 1581 9 Evidence-based Medicine Center, School of Bas  
## 1681 9 Fred Hutchinson Cancer Research Center  
## 1909 9 Hong Kong Polytechnic University  
## 2481 9 Kyoto University