## Visualizations of original ISMs

Zhengqiao Zhao<br/>1\*, Bahrad A. Sokhansanj $^{1\dagger},$  Charvi Malhotr<br/>a $^2,$  Kitty Zheng $^2,$  Gail L. Rosen<br/>  $^{1+},$ 

Ecological and Evolutionary Signal-Processing and Informatics
Laboratory, Department of Electrical and Computer Engineering, College of Engineering, Drexel University, Philadelphia, PA, USA
College of Medicine, Drexel University, Philadelphia, PA, USA

- \* zz374@drexel.edu
- † bahrad@molhealtheng.com
- + glr26@drexel.edu



**Figure A** Major subtypes in countries/regions with the most sequences (indicating date subtype was first sequenced in that country/region). Subtypes with less than 5% abundance are plotted as "OTHER". The raw counts for all ISMs in each country/region, as well as the date each ISM was first found in a sequence in that country/region



**Figure B** Viral subtype distribution in the United States, showing the 25 states with the most sequence submissions. Subtypes with less than 5% abundance are plotted as Other. The raw counts for all ISMs in each state, as well as the date each ISM was first found in a sequence in that state



**Figure C** Relative abundance in other countries of the second-most abundant subtype in Italy, TCACTCGTCCACAGGGTAAC (left) and most abundant subtype in Italy TCACTCGTCCACAGGGTGGG (right).







**Figure E** Relative abundance (%) of ISMs in DNA sequences from USA as sampled over time.



**Figure F** Relative abundance (%) of ISMs in DNA seque sampled over time.



Figure G Relative abundance (%) of ISMs in DNA sequences from Canada as sampled over time.



**Figure H** Relative abundance (%) of ISMs in DNA sequences from Mainland China as sampled over time.



**Figure I** Relative abundance (%) of ISMs in DNA sequences from Netherlands a sampled over time.



**Figure G** Relative abundance (%) of ISMs in DNA sequences from Spain as sampled over time.