PLOS Science Wednesday: Hi reddit, I’m Neus and the results of my PLOS Pathogens study show that one influenza virus may protect against later infections caused by other viruses of different subtypes in mallard ducks – Ask Me Anything!

Hi Reddit,

My name is Neus Latorre-Margalef and I am currently a postdoctoral fellow at Lund University, Sweden. My research focuses on host-pathogen interactions and processes of diversification in pathogen populations. My study systems are low-pathogenic influenza A virus circulating in wild birds and I recently started working also with Borrelia causing Lyme disease.

Together with Prof. David Stallknecht and colleagues at the University of Georgia, we recently published a study in PLOS Pathogens entitled *Competition between influenza A virus subtypes through heterosubtypic immunity modulates re-infection and antibody dynamics in the mallard duck.*

We investigated how mallard ducks respond to influenza infection and how influenza viruses of different so-called “subtypes” interact with each other after re-infection. We found that one virus can partially protect against later infections caused by other viruses of different subtypes— infections were much shorter and fewer viruses were shed. The results clearly demonstrate that the degree of protection depends on the genetic similarities between the influenza subtypes. Thus a primary infection can influence later infections in life and suggests that primary infections could induce protection against “novel” highly pathogenic strains like H5N8. This indicates that there is competition between influenza subtypes that has great importance for the evolution of diversity within influenza infecting wild birds.

I will be answering your questions at 1pm ET. Ask Me Anything!

The AMA is still in progress
one influenza virus may protect against later infections caused by other viruses of different subtypes in mallard ducks – Ask Me Anything! is still ongoing! After the AMA is finished it will be permanently archived, assigned a digital object identifier (DOI), and formatted as a white paper.

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