Data on selected autoimmune diseases (1)

Within your group, analyze and discuss the data provided below. Here are some questions that might help you to get your discussion started. You do not have to address all of them.

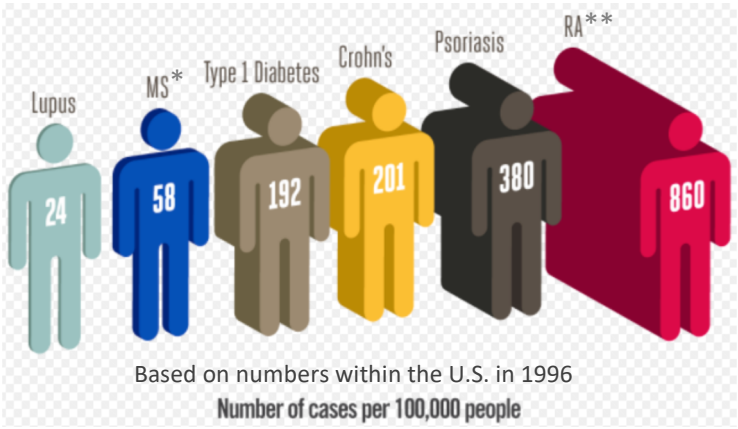
- *What do these data tell you about autoimmune diseases and their causes?*
- *How common are autoimmune diseases?*
- *How many people in a given population have an autoimmune disease?*
- *Do you see any trends in these data?*
- *Who gets autoimmune diseases?*
- *What factors do you think contribute to a higher risk of getting an autoimmune disease?*
- *Can you infer some causes of an autoimmune disease from these data?*

State your claims and your evidence for what factors you think contribute to a higher risk of getting an autoimmune disease in the tables provided in your worksheet and give reasons for why you think these might be true.

1 Prevalence of selected autoimmune diseases within the U.S. in 1996

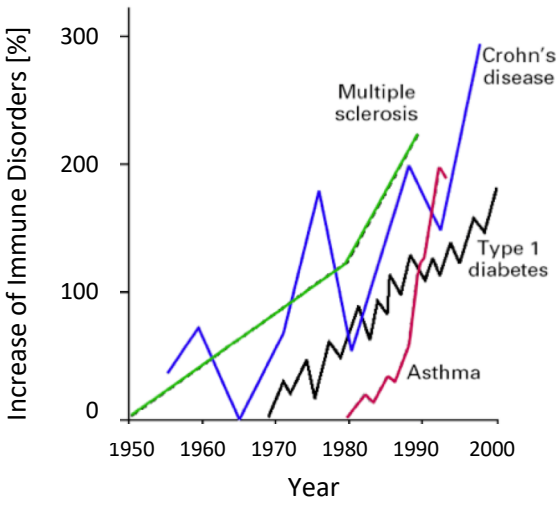
Source: Jacobson DL, Gange SJ, Rose NR, Graham NMH. Epidemiology and Estimated Population Burden of Selected Autoimmune Diseases in the United States. *Clinical Immunology and Immunopathology* 1997;84:223-43

* MS: Multiple sclerosis ** RA: Rheumatoid arthritis



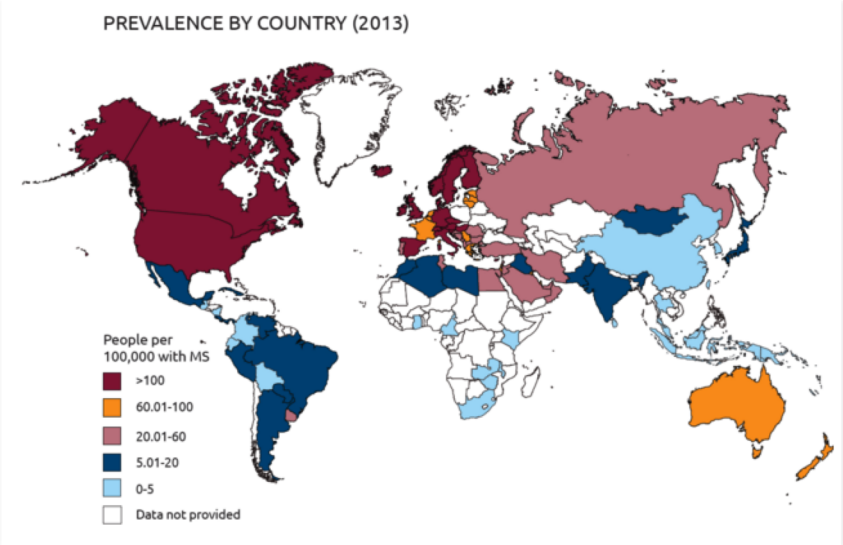
2 Incidence of selected autoimmune diseases over time

Source: Bach JF. The effect of infections on susceptibility to autoimmune and allergic diseases. *N Engl J Med*. Sep 2002;347(12):911–920



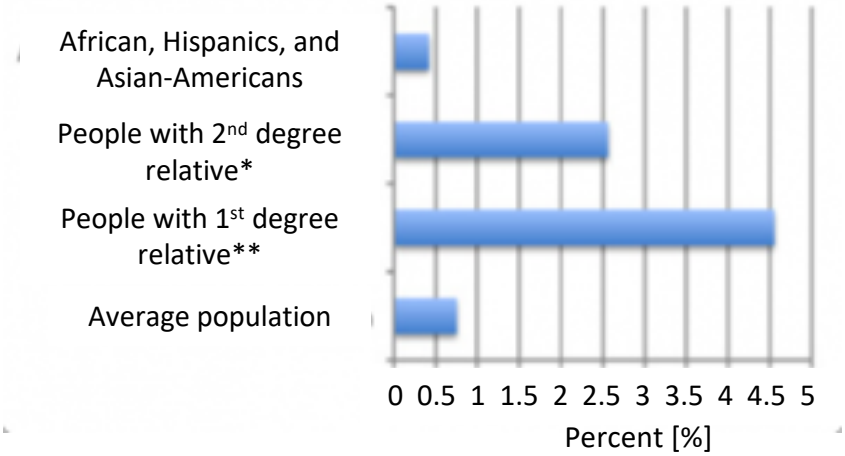
Data on selected autoimmune diseases (2)

3 Global prevalence of multiple sclerosis (MS) in 2013



Source: Paul Browne et al. Atlas of Multiple Sclerosis 2013: A growing global problem with widespread inequity. *Neurology* 2014; 83: 1022-1024

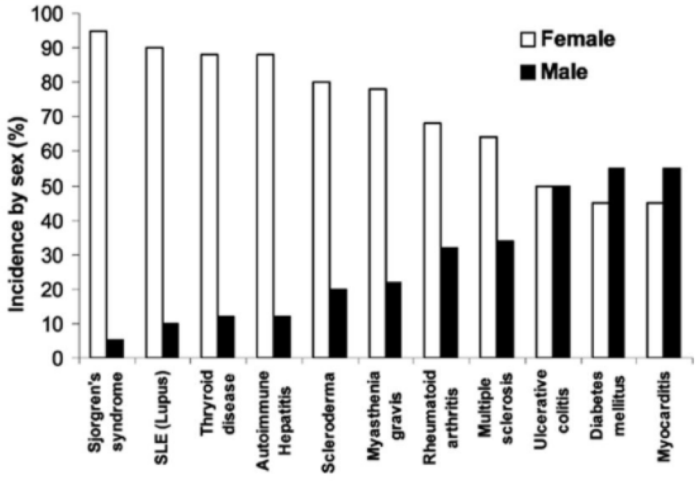
4 Prevalence of celiac disease in the U.S.



Source: http://anthropology.msu.edu/anp204-us12/2012/07/13/celiac-disease-in-caucasian-americans/

*grandparents, grandchildren, aunts, uncles, nephews, nieces or half-siblings
** parent, sibling or children

5 Sex distribution of major autoimmune diseases based on total number of disease cases in the U.S.



Source: *Nature Immunology* 2001;2:777-780