

41

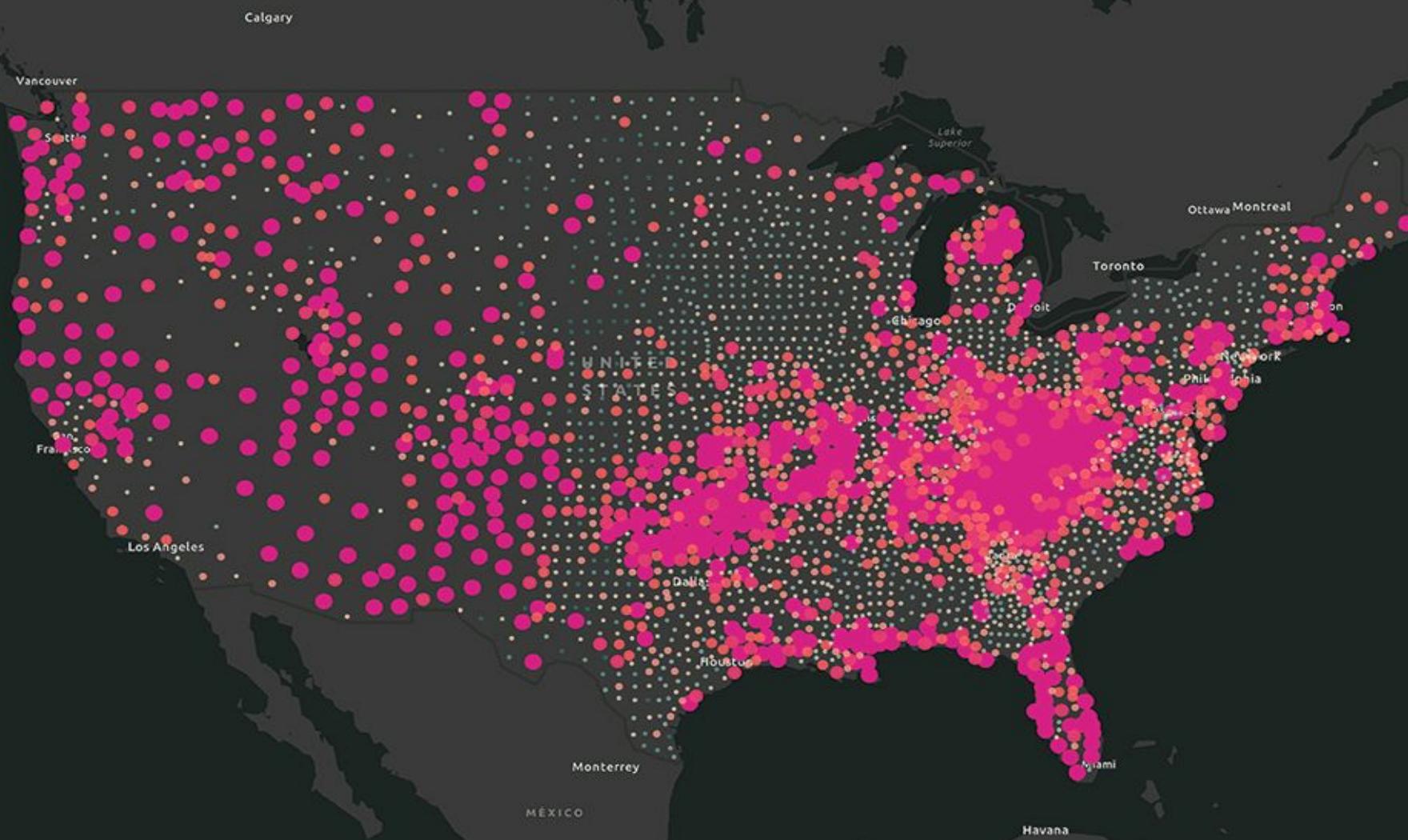
people pass away **each day**
due to HIV



people pass away **each day**
due to opioid overdose

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| biochemistry

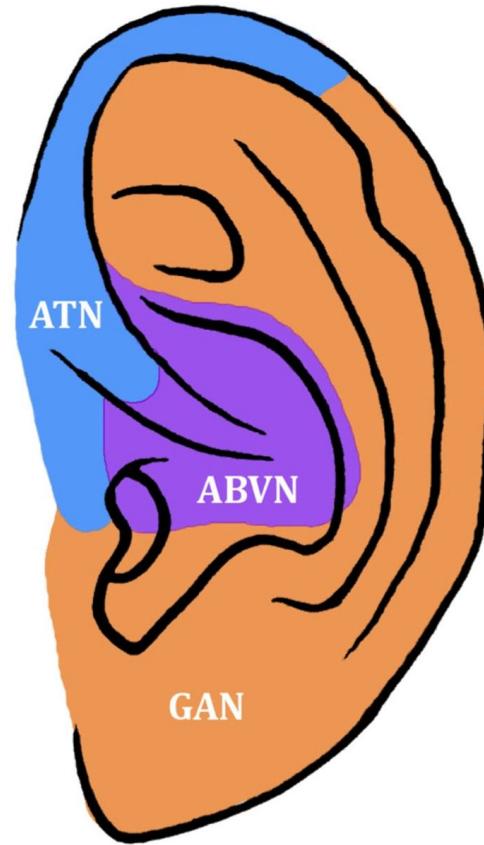
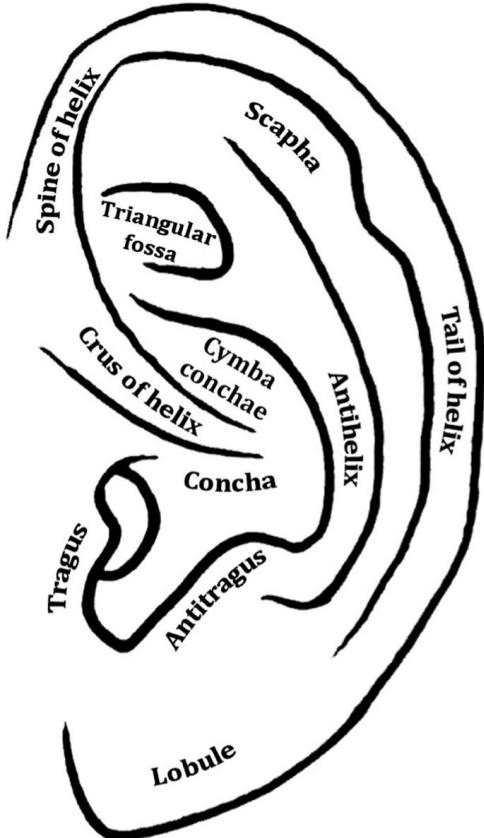


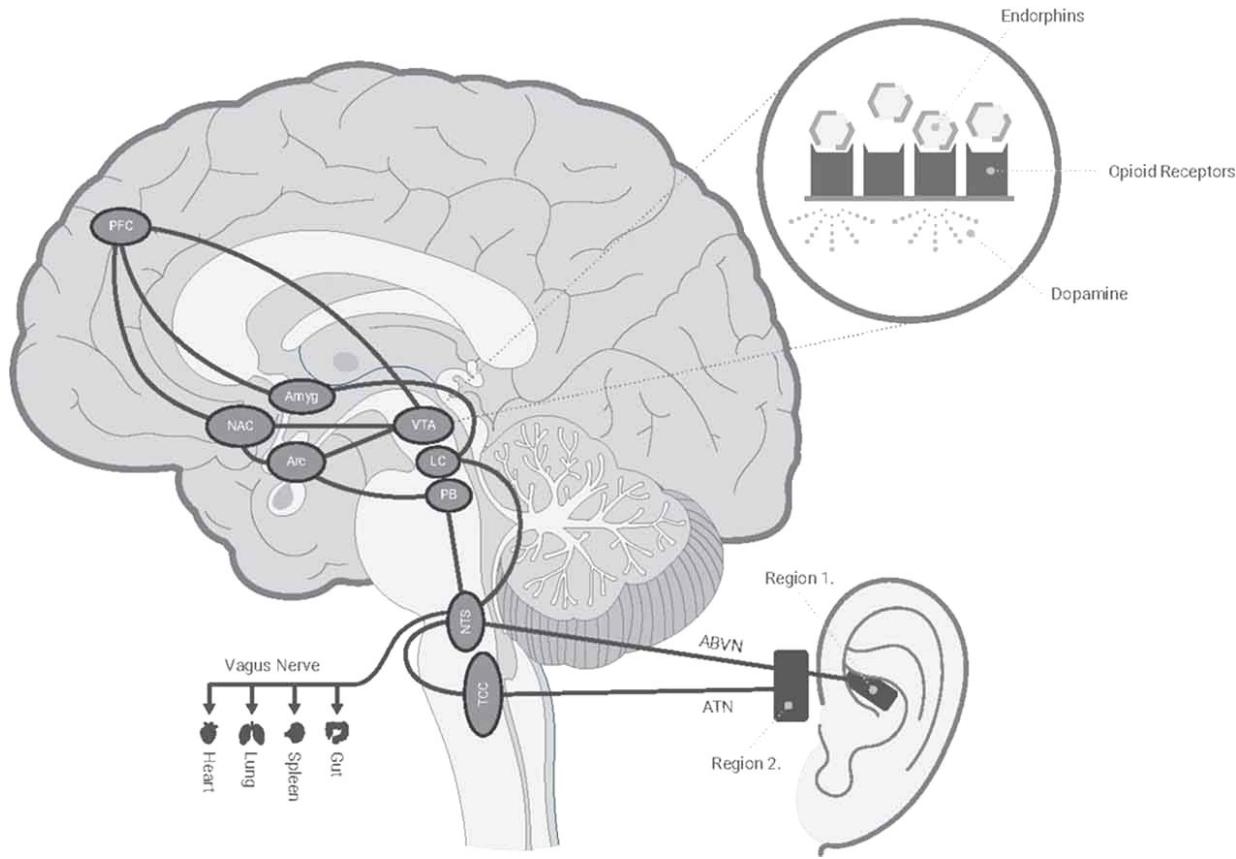
**opioid
dependent**



**opioid
free**

pulse

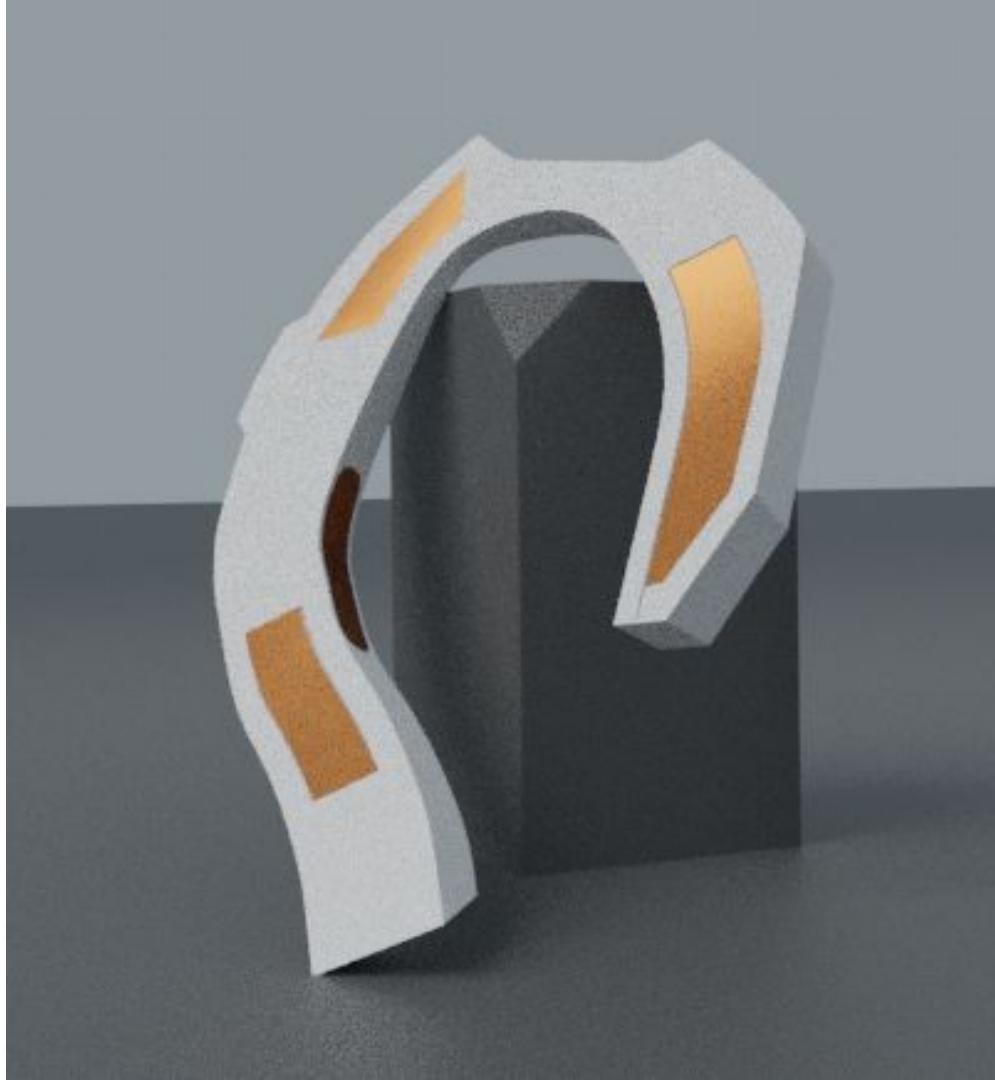




Ellison F, Ellison W, Daulouede JP, Daubecq JF, Pautrizel B, Bourgeois M, Tignol J. Opiate withdrawal and electro-stimulation. Double blind experiments. Encephale. 1987 Jul-Aug;13(4):225-9. PMID: 3311708
 Butt, M. F., Albusoda, A., Farmer, A. D., and Aziz, Q. (2020). The anatomical basis for transcutaneous auricular vagus nerve stimulation. *J. Anat.* 236, 588–611. doi: 10.1111/joa.13122
 Kovacic K, Hainsworth K, Sood M, Chelimsky G, Untutsch R, Nugent M, Simpson P, Miranda A. Neurostimulation for abdominal pain-related functional gastrointestinal disorders in adolescents: a randomised, double-blind, sham-controlled trial. *Lancet Gastroenterol Hepatol.* 2017 Oct;2(10):727-737. doi: 10.1016/S2468-1253(17)30253-4. Epub 2017 Aug 18. PMID: 28826627.



pulse



ending the epidemic.