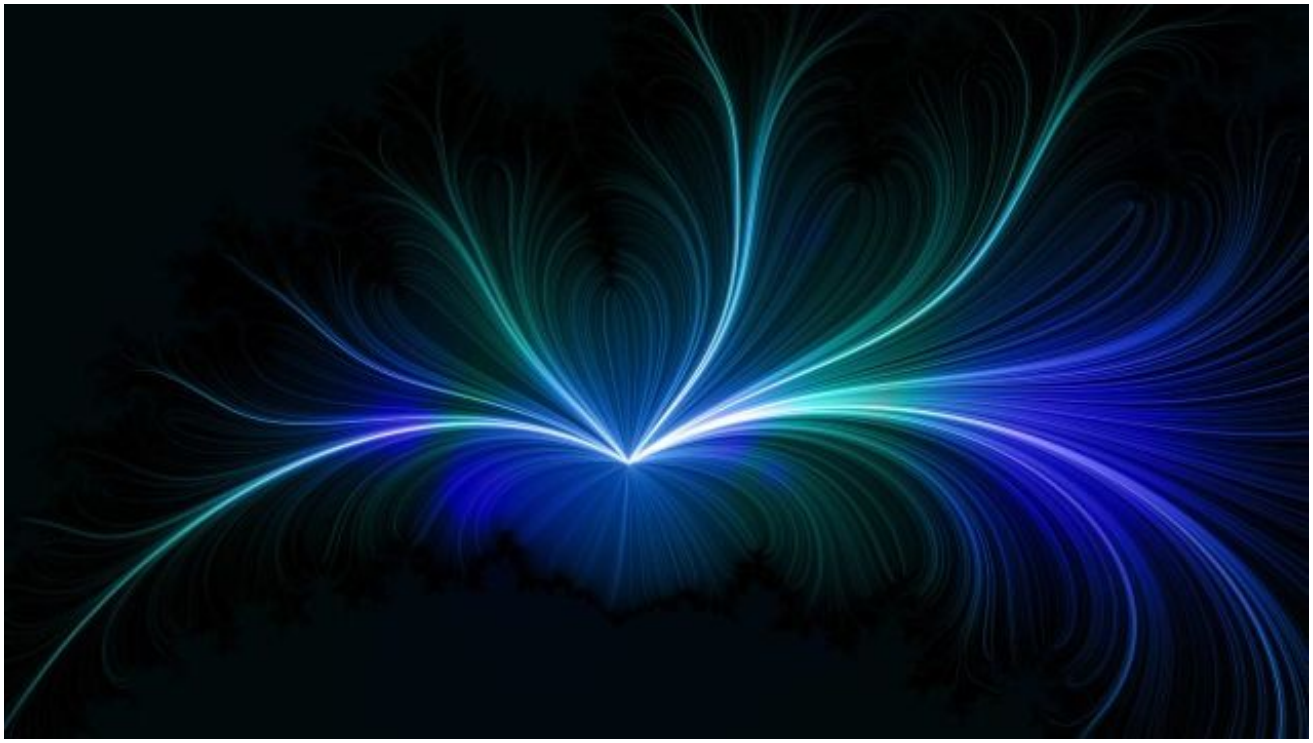
Our eyes are theoretically capable of sensing magnetic fields



Birds, bees, and turtles all possess the ability to navigate by the Earth's magnetic field. Humans might actually possess the exact same magnetism-sensing hardware as these other creatures, as a light-sensitive protein taken from the human eye gave flies magnetovision.

Researchers at the University of Massachusetts in Worcester looked at cryptochromes in the human eye. These are proteins that regulate our circadian rhythms, but in other, magnetism-sensitive creatures, they are crucial to enabling magnetovision. To test whether our human cryptochromes have this potential, the researchers took some samples of the human protein hCRY2 and transplanted them into fruit flies.

These flies were then trained to navigate through a maze in search of a reward. There were two possible routes to the reward, with one featuring a strong magnetic field and the other without. The flies who had received the human protein overwhelmingly preferred the magnetic path, while the unaltered flies ignored the field and were distributed evenly between the two routes.

So then, we have at least the basic equipment that would allow us to see magnetism. But, as University of Illinois researcher Klaus Schulten points out, if we actually were capable of sensing these fields, that ability would have emerged long ago. For whatever reason, our evolutionary development in other areas took us away from magnetovision. You know, for whatever reason, I've never been more angry at bipedalism and complex tool-making than I am right now.

Nature Communications via New Scientist. Image via.