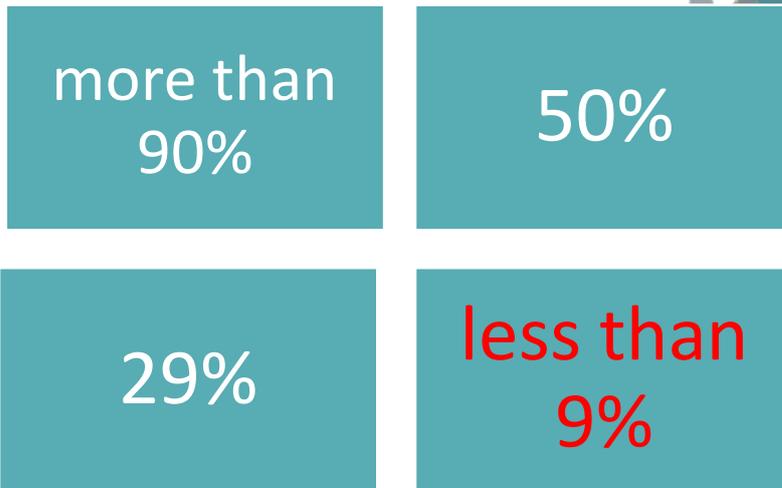


Institut für Biologie
Experimental Biophysics
Molecular Genetics



How much of our plastic waste is recycled worldwide¹?



Most of this plastic does not biodegrade and stays in ecosystem cycles for thousands of years, ending up as microplastic in the oceans.

Create a plastic-degrading *Chlamydomonas* cell with us!

As an alga with a relatively small chloroplast genome, *Chlamydomonas reinhardtii* could be genetically modified to degrade PET using a hydrolyzing enzyme². To this means we, a student research team, will use synthetic biology tools and work in collaboration with the HU Biophysics Department and HU Molecular Genetics lab. Our project goal is to ease pollution in marine ecosystems while engaging in an engineering biology competition.

Take part in the International Engineered Machine Competition iGEM 2019!

HU iGEM '19 Team
igem@chlamy.de

1) Geyer, R., Jambeck, J. R., & Law, K. L. (2017). Production, use, and fate of all plastics ever made. *Science Advances*, 3(7). Retrieved from <http://advances.sciencemag.org/content/3/7/e1700782.abstract>

2) Yoshida, S., Hiraga, K., Takanaha, T., Taniguchi, I., Yamaji, H., Maeda, Y., ... Oda, K. (2016). A bacterium that degrades and assimilates poly(ethylene terephthalate). *Science*, 351(6278), 1196–1199. <https://doi.org/10.1126/science.aad6359>