1000 WORD DICTIONARY

University of Oxford iGEM Team 2014

Synthetic Biology and iGEM concepts demystified by our team using only the 1000 most common words in the English Language.

Bacterium (n)

bac·ter·i·um

Living thing made of one cell that can eat, move, grow, and respond to what is around it.
Living as one single cell, they can live in all places and make up the largest group of living things.

BioBrick (n)

bio·bri·ck

A ready-made part of a cell that can be put together with other parts in any way, just like building blocks, to make that living thing do something you want.

Bioremediation (v)

bio·re·med·iat·lon

Using living cells to clean up bad things that humans make, and turning it into something safe.

Competent Cells (n)

com·pet·ent cell·s

Cells that are able to take in bits of living-thing-plans that are not their own from the area outside. Single cells that are whole living things in themselves sometimes do this in their usual lives. They perhaps do this as they may pick up a bit of a living-thing-plan that makes them better at living in their area than other cells near by, or to give them bits of living-thing-plans from which to fix or make more of their own plans. We can also force cells to be able to do this for a short time so that we can give them bits of living-thing-plans that we want them to have for our studies.

DCMation (n)

D·C Mat·ion

Cleaning up something that is made by humans and is bad for the world.

Deterministic (ajd)

det·erm·in·ist·ic

Follows a fixed set of directions written in numbers. Because of this, you can exactly guess how something will act.

Gene (n)

ge·ne

Something inside a cell that adds a little bit to the way the cell moves, eats, acts, or responds to what is around it.

Gibson Assembly (n)

gib·son ass·em·b·ly

A way of putting bits of different parts of living-thing-plans together. Each part can be thought of as a line of letters, there are only four letters and the number of each letter and the order they are written tells us what the part is. Each part is made at least twenty letters longer than just the plan-part. Then it is eaten back from the ends so that the new eaten-ends match another part so they can now stick together. With this way more than two parts can be put together in one go and this is what makes this way different from other ways of putting parts living-thing-plans together. We do this so that we

can put together many parts that are not usually next to each other and so make new living-thing-plans. We can use these to find out how parts of living-thing-plans work, how well they work and to make new stuff to use outside of the room where we use this way.

iGEM (n)

i·gem

Students from around the world come together to try and make living things do something cool and new using simple, building blocks.

Intellectual Property (n)

in·tel·lec·tu·al prop·er·ty

A right to use your ideas, and to stop others from using/making money from your work, usually only for a fixed time.

Modelling (v)

mod·el·ling

Trying to guess how something will act by using numbers.

Monopoly (n)

mo·nop·o·ly

A situation in which just one business has control of the whole of a given area.

Open Source (adj)

op·en sour·ce

A way of sharing ideas and work for free, so that they can be used by anyone and everyone without paying money.

Realisation (v)

re·al·i·sat·ion

Because we are guessing by using numbers picked by chance, each guess will be slightly different, so we guess many times and use the middle.

Stochastic (adj)

sto·chas·tic

Trying to guess how something will act by using numbers picked by chance, instead of a fixed set of directions.

Synthetic Biology (n)

syn·the·tic bio·lo·gy

Using building blocks of living things to make something new that can help the world.