

2005

	<u>Uni</u>	<u>Team #</u>	<u>Zusammenfassung</u>
1	Oklahoma	1	environmental sensor for bacterial carbon source (arabinose)
2	Harvard	1	"biowire" - chemical signal transduction via quorum sensing
3		2	"biosketch" - UV->"pen", heat ->"eraser", Lac operon protein change
4	UT Austin	1	bacterial photography
5		2	light wire
6		3	edge detector - e. coli sensing light/dark boundaries of an applied image
7	Toronto	1	Cell-See-Us - tuneable thermometer, changes in proteins of Lac Operon measured
8		2	Etch-a-Sketch - draw (lactose)/erase (tetracycline) on e. coli-lawn; Lac operon
9	Davidson	1	Chemical Decoder - 3 chemicals->8 combinations, RNA switches with 3 diff. aptamers
10	ETH Zurich	1	Counter - finite state machine, counts to 2, n machines count to 2 ⁿ
11	Berkeley	1	biological internet - cell-to-cell encrypted communication via mRNA-encoding plasmids and conjugation
12	Penn State	1	Relay Race - sequentially inducing motility using quorum sensing molecules to toggle changes in Lac operon state
13	UCSF	1	bacterial thermometer - temp.dependent promoters controlling steady-state GFP-expression
14	MIT	1	basic biological signal processing system, modular design
15	Cambridge	1	transient gene expr. leading to permanent activation of behaviour: traffic light - mCherry -> promotor flipping -> GFP + MalE(chemotaxis to maltose) -> MBP + maltose + pMalT -> mOrange

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1	Rice		
2	Mexico		
3	MSU		
4	Penn State	1	relay race
5	Latin America	1	Interaction of UV Photon-Iron Porphyrins Genes: A Microbial Biosensor.
6	Davidson	1	Solving the Burnt-Pancake Problem with an <i>E. coli</i> Computer
8	Duke	1	bacterial dynamo - for generating electricity using modified magnetotactic bacteria on a microfabricated device.
9		2	Cancer StickyBots (CSB), for targeting and destroying tumour cells using engineered <i>E. coli</i> cells.

10		3	Human Encryption (HE), an information encoding, storage, and retrieval scheme for potential future security and medical diagnostic applications.
11		4	X-Verter (XV), new strategies and tools for biological circuit design and BioBrick management.
12	Princeton	1	PROGRAMMED DIFFERENTIATION OF MOUSE EMBRYONIC STEM CELLS USING ARTIFICIAL SIGNALING PATHWAYS
13	Brown	1	bacterial freeze tag - bacteria move in fluid, stop moving and change color when near the "IT" cell, other bacteria swimming near the frozen ones reconstitute their motility