



CENTER FOR GENETICS AND SOCIETY

Elliot Hosman

Synthetic Biology: DIY Tinkering Meets Big Capital
Shaping San Francisco

ehosman@geneticsandsociety.org

13 April 2016



Apple, Campus 2
Cupertino, CA
(under construction;
rendering pictured)

"With a price tag of around **\$5 billion**, it may be the most expensive corporate headquarters in history."
The Economist, Alexandra Suich, April/May 2016



Manifest Destiny?

Technological Solutions

- **App for That**
- **Gene for That**
- **Org[anism] for That?**

App for That





App for That



“Sharing Economy”

“Empowering Workers”

“Democratizing & Revolutionary”

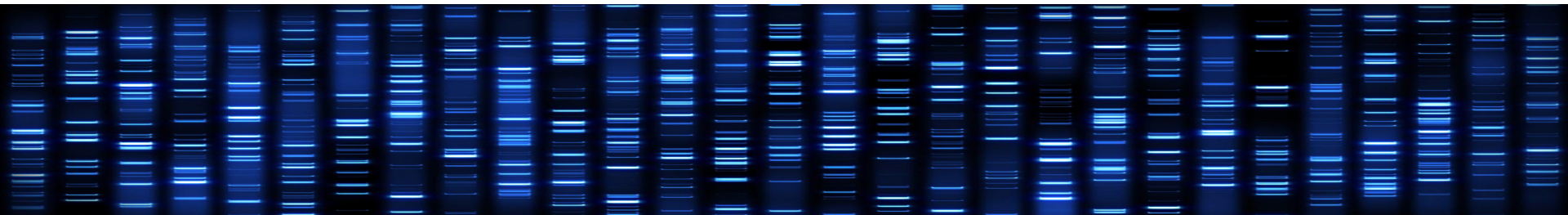
Prioritizing Customers & Convenience & “Fun”
over Rights of Workers, Social Consequences?

The inherent wastefulness of Venture Capital



Gene for That

Source: k0ks3nw4i.blogspot.com



Gene for That

Genetic Determinism

Behavioral Genetics

from sexuality to gang affiliation

Locating fault in the individual for
society-dependent experiences or problems?

Source: k0ks3nw4i.blogspot.com



Genetics doesn't just
determine our hair and eye
colors. Our DNA also can be
an indicator of how we will
behave in certain situations.

Our genes also affect how
likely someone is to ...⁽¹⁾



...be politically
liberal.



...be a
thrill-seeker.



...live a long
and healthy life.



...be sexually
promiscuous.



...donate
to charity.

Source: Online Course Report

Org for That?

DIYbio

Glowing Trees

Vegan Cheese

BioTech

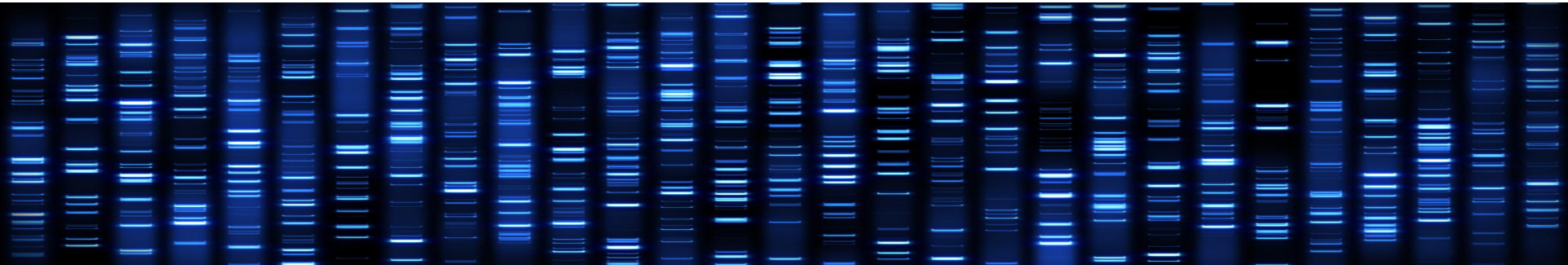
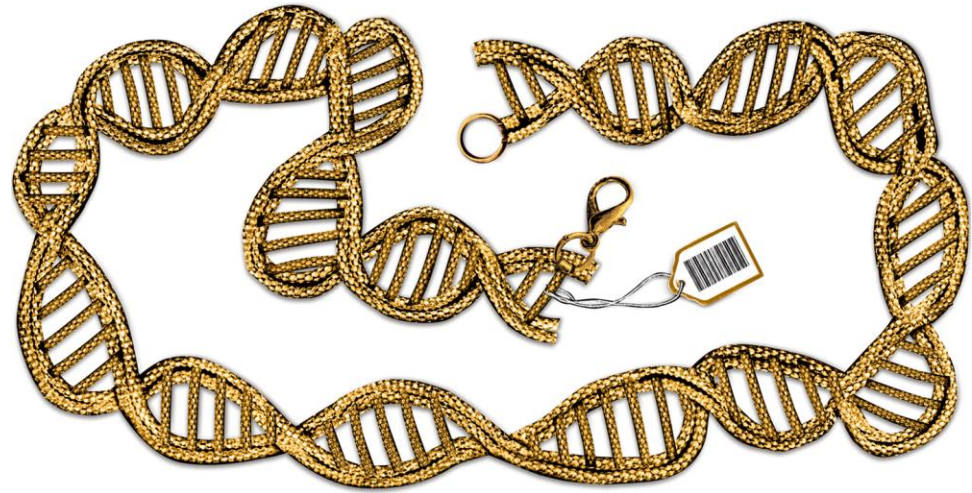
“Golden Rice”

Hornless Cows



a eugenic history of fixing life

Can We Cure Genetic Diseases Without
Slipping Into Eugenics?, Nathaniel Comfort,
The Nation, July 16, 2015

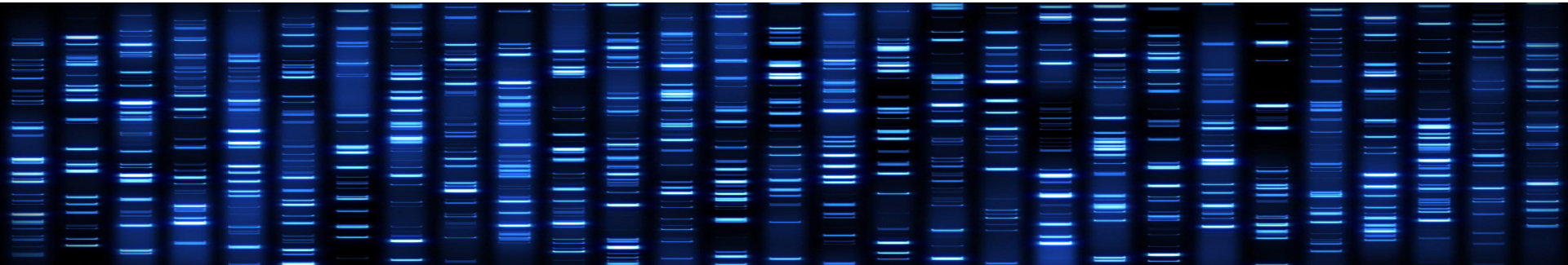


a eugenic history of fixing life

“a disturbing tendency to regard ourselves, one another, and especially our children as **specimens to be improved**. ...

Even those opposed to genetic enhancement presume ...biotechnology the most effective tool for solving social problems.
...Sci-fi genetic fantasies, whether hand-waving or hand-wringing, divert our attention from other, more important determinants of health.”

Can We Cure Genetic Diseases Without Slipping Into Eugenics?, Nathaniel Comfort, *The Nation*, July 16, 2015



Ruha Benjamin

TEDxBaltimore

Discriminatory Design



Ruha Benjamin

TEDxBaltimore

Discriminatory Design

“Rather than dealing with underlying conditions, we create short-term [technological innovation] responses to get the issue out of sight.”

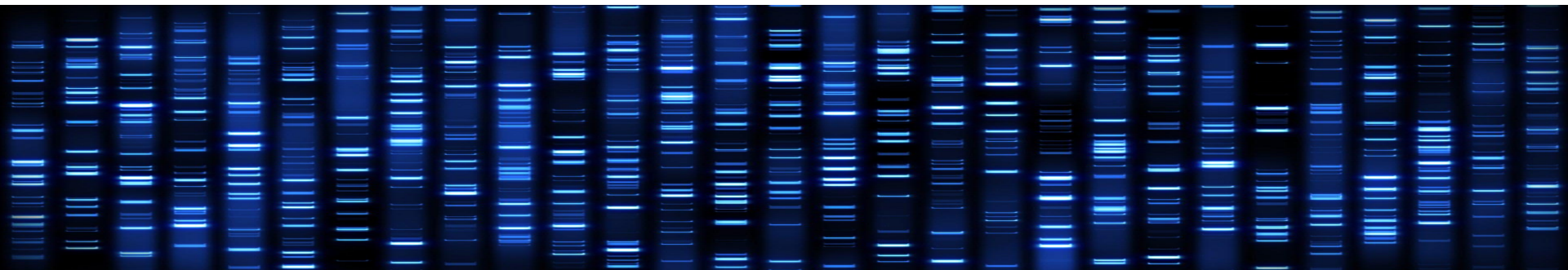


citizens & democracy

who is a “citizen scientist”?

is DIYbio “democratizing science”?

what does “participatory democracy” look like?

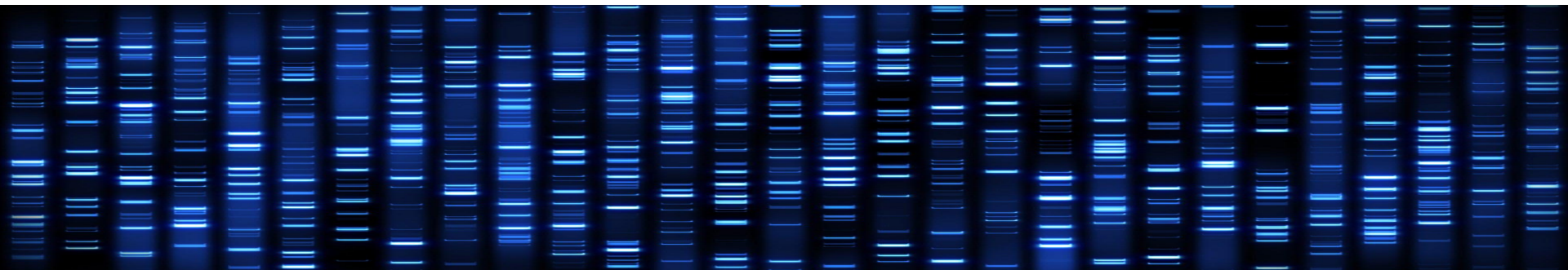


biohacking ethics

tinkering & innovation: freedom of expression?

defining “peace” & “respect for environment”?

“public deficit” model of public participation?



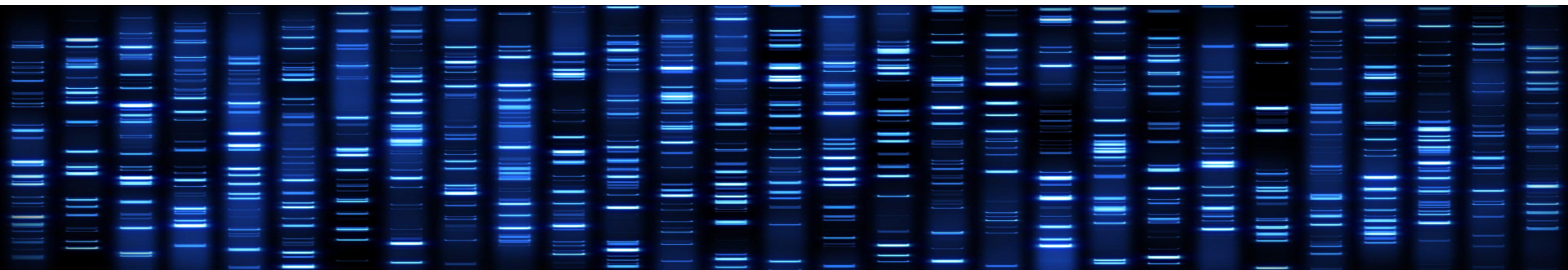
interrogating access to biotech

is this trickle down biotechnology?

who designs platforms, user experience & algorithms?

what values are mechanized bringing biohacking to market?

who stands to profit despite our best intentions?





CENTER FOR GENETICS AND SOCIETY

geneticsandsociety.org



the *new biopolitics*:
responsible uses and effective societal governance
of human genetic & reproductive technologies