

# The Virtual World: A 21st Century Medium for: I. CyberSpace, II. StreetSpace, III. OuterSpace, and IV. BioSpace

Presented in the Embryo Physics Course <http://www.embryophysics.org>

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By

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Digital Space Commons

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# The Virtual World

A 21<sup>st</sup> Century Medium

*for*

I. CyberSpace

II. StreetSpace

III. OuterSpace

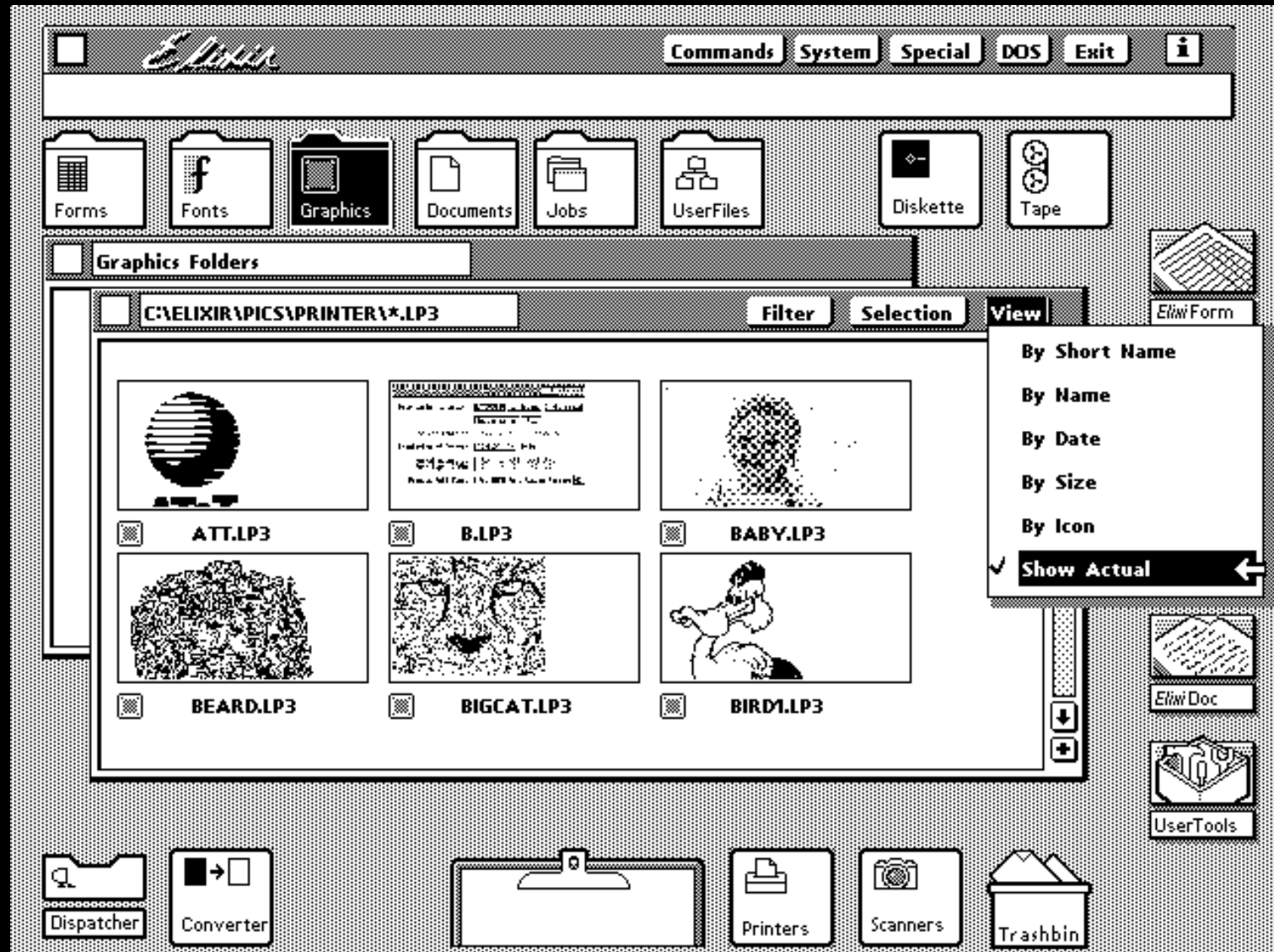
IV. and BioSpace

Brought to you by Bruce Damer

*His Avatar, His Worlds & Himself*

# Bruce Damer pre-history – 1980s

*Built first graphical desktop for PCs (Elixir-Xerox)*



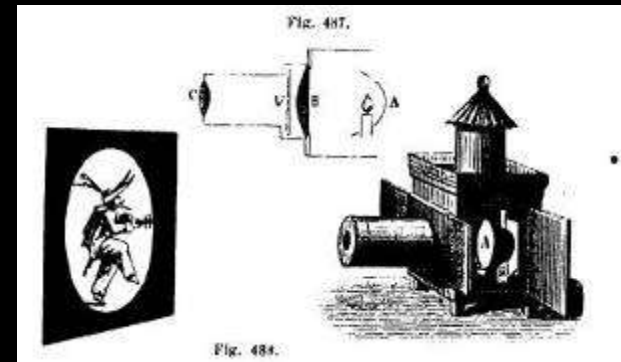
I

# The Origins and Evolution of the Virtual World in CyberSpace

# Projecting into Virtual Worlds circa 25,000 BCE

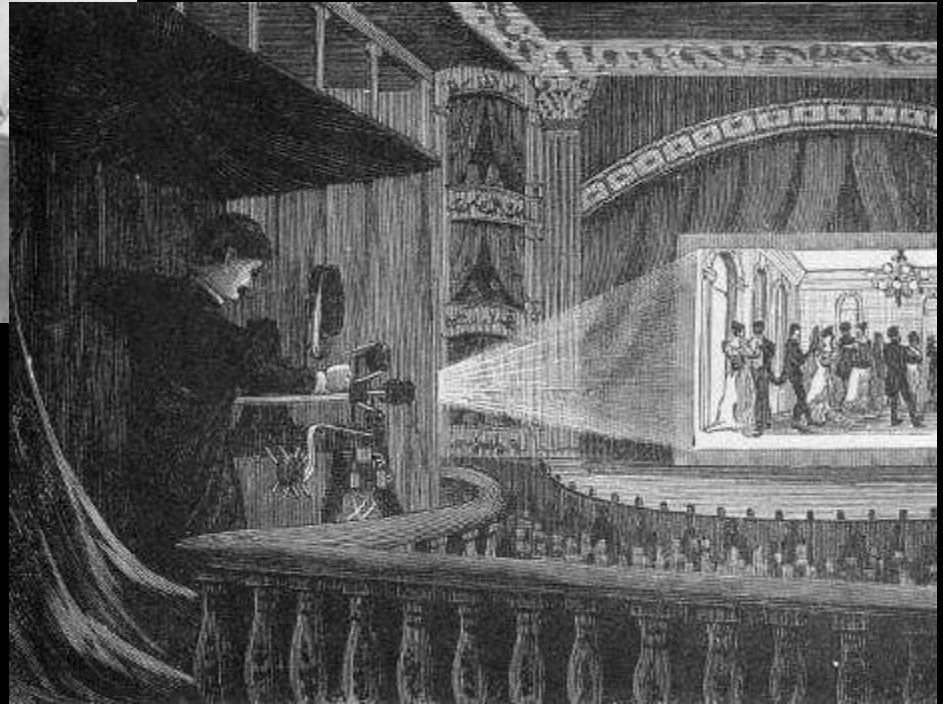


# Projecting virtual worlds Through The Lanterna Magika (1671)

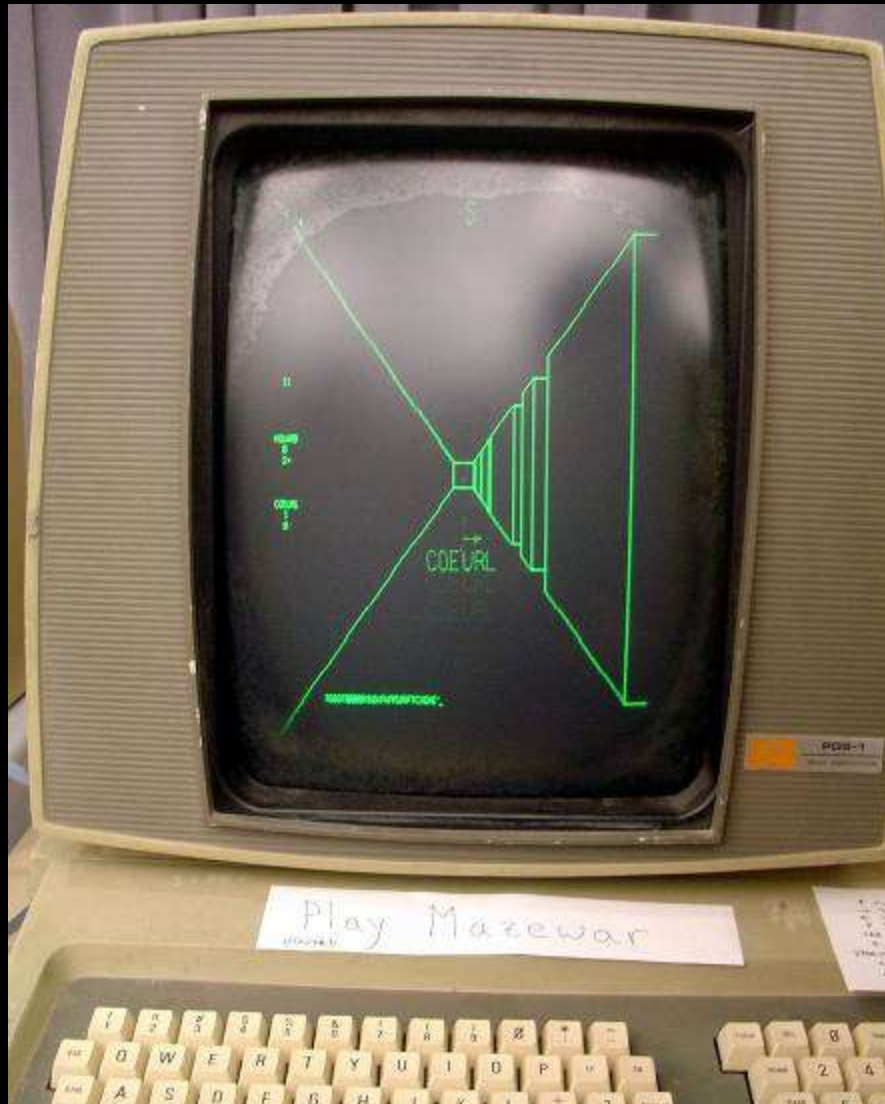




# A shared experience: the Cinema replaced the earlier Kinetoscope Parlors



...and in 1974, the first instance 3D virtual worlds in Maze War





...then in 1986 affordable personal computers are connected to dial-up networks



nearest town is +. The nearest teleport booth is +.  
Your name is CMetRep126. You are in the peak of health. You live at Populated 1616.

And Lucasfilm's *Habitat* (and avatars) were born



# Worlds Chat, 1995: where Avatars and Virtual Worlds first materialized on the Internet



Also in that year Steven Spielberg created the marriage of virtual worlds and Hollywood with *Starbright World*





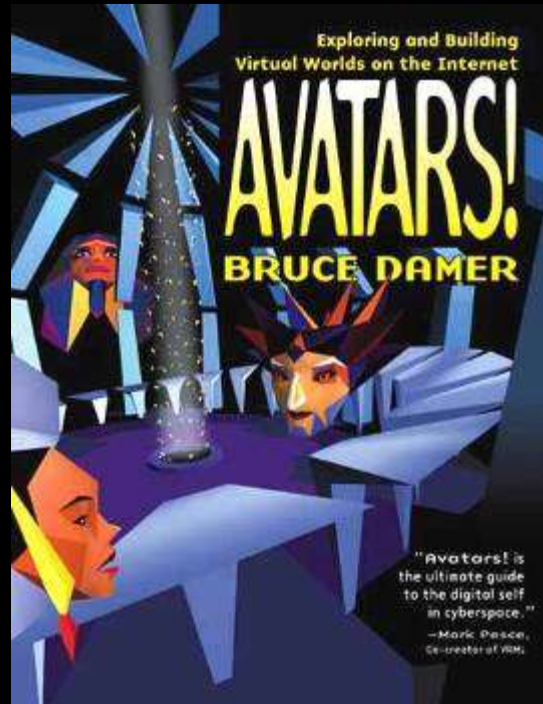
1998: With the colonization of Internet social virtual worlds a new medium was born





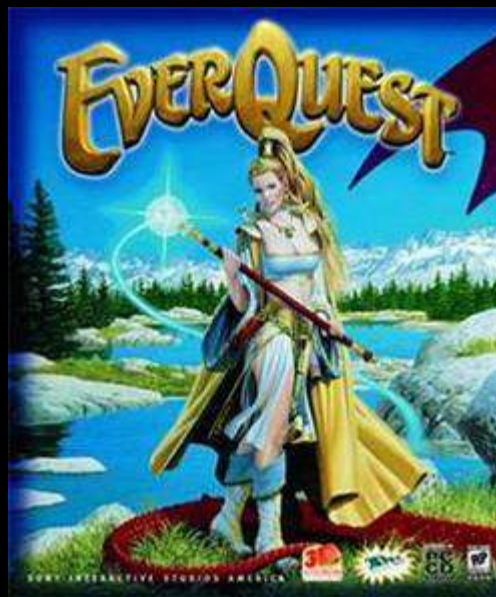
# Explosion of Social Virtual Worlds platforms

(Book *Avatars* by Damer – 1997)





# Beginnings of Multiplayer Gaming Worlds

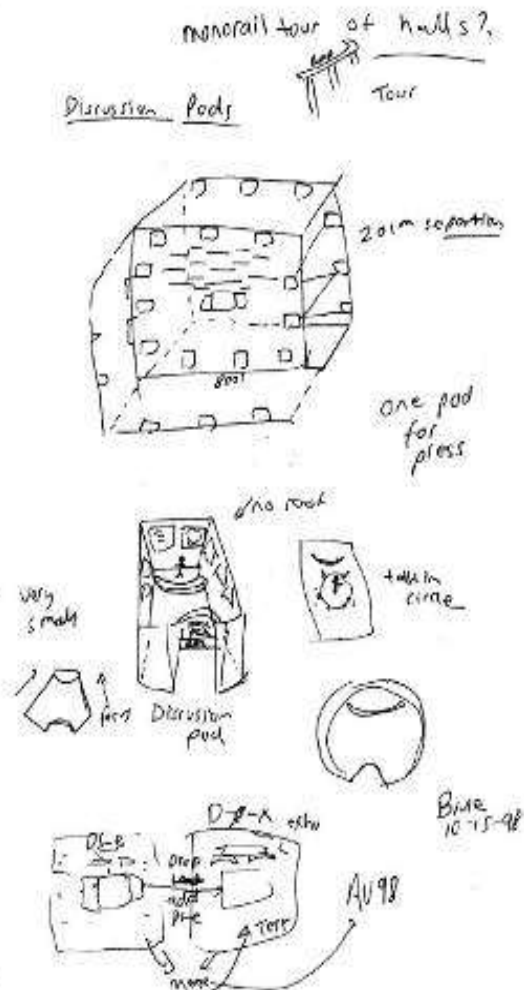
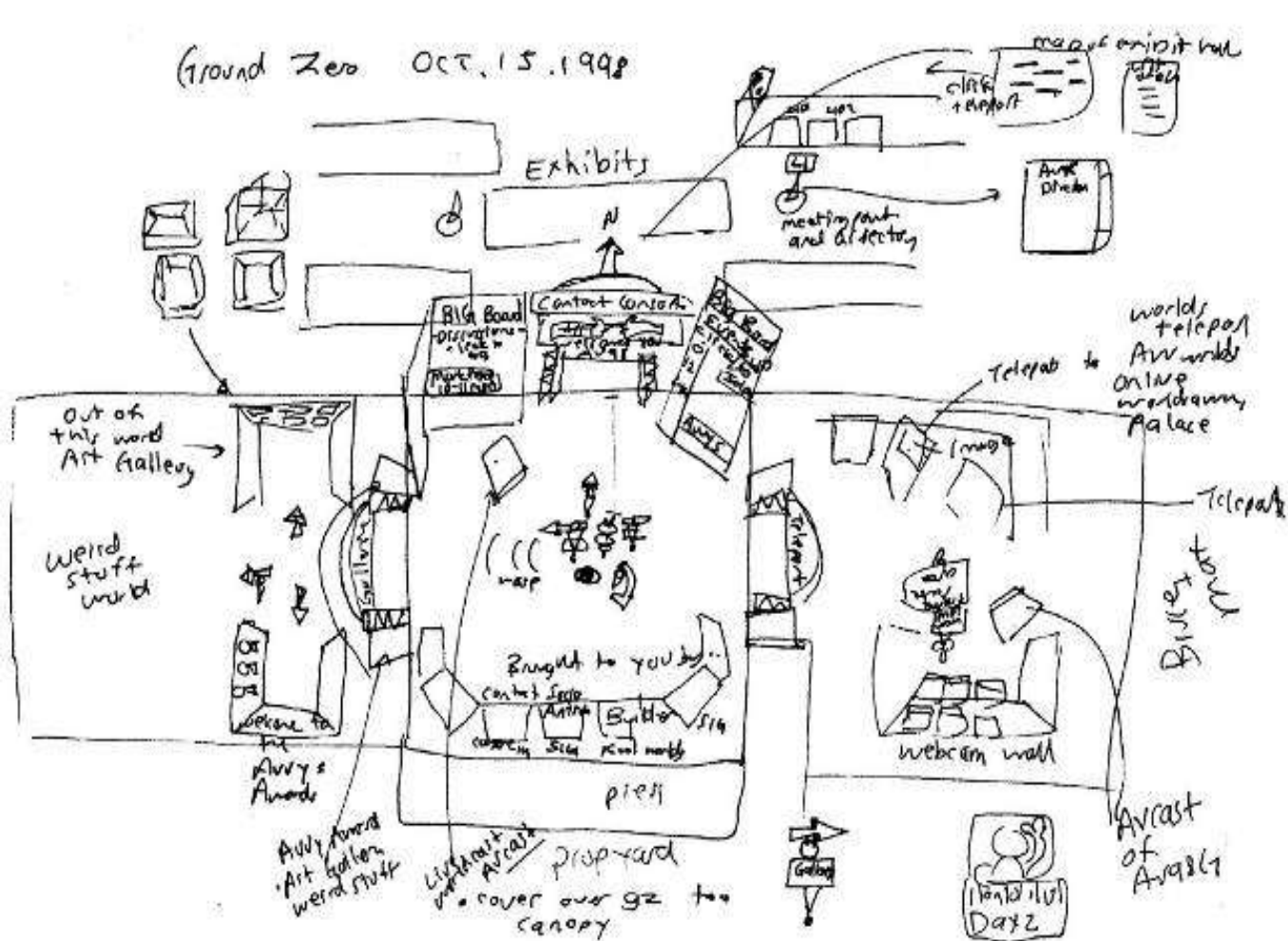




# 2003-present: Second Generation Social Virtual Worlds



The first large scale event in  
avatar cyberspace: *Avatars98* Cyberconference





Design elements: single large meeting space  
avatars, chat, web cams, streaming voice, bots



BCat: All well with project?  
Rhythm Dancer: god send me some memory Bonnie LOL  
rypp: Lucio will be presenting a talk at the UN booth 29n 31w now !!  
amigos2: hi totoo nice navigator in amigos  
'Andy': Hi all  
raiven: **EVERYONE GO TO [HTTP://WWW.ECAFE.COM/WEBCAST/EICOUNTER2.HTML](http://www.ecafe.com/webcast/eicounter2.html)**  
Athorx: Tootoo i am going now to fix that :-)

ppppp



Our thanks  
to all the people  
around the globe who  
worked so hard to  
make this event  
happen



# Visual and functional elements of Avatars98





Zem MyTwoKeys "Hannes"

Europa/Avatar

Ina Gerlitz

Diginardon.  
es. santa cruz  
CA

overall winner

actlak1

"miriam"

MauzHoneysuckle-g

General  
WINNER

Fairies Asires  
Lightwave  
Valeria

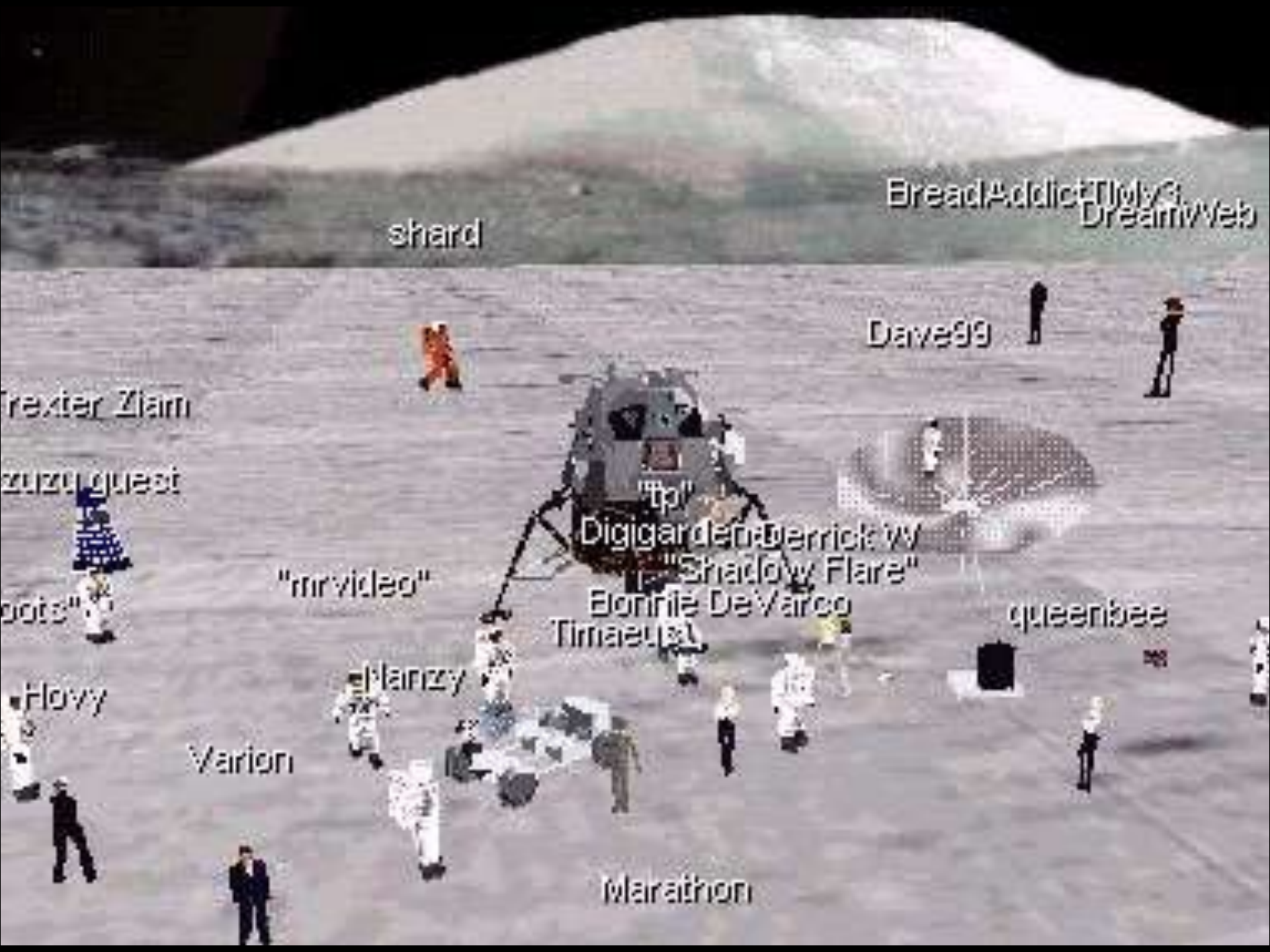
Strawberry  
Wine





Rusty became our historical actor and narrator to commemorate the 30<sup>th</sup> anniversary of the Apollo XI moon landing





shard

BreadAddict  
Timely3  
DreamWeb

Dave99

Trexter Ziam

zuzu quest

oots"

Howy

Varion

"mrvideo"

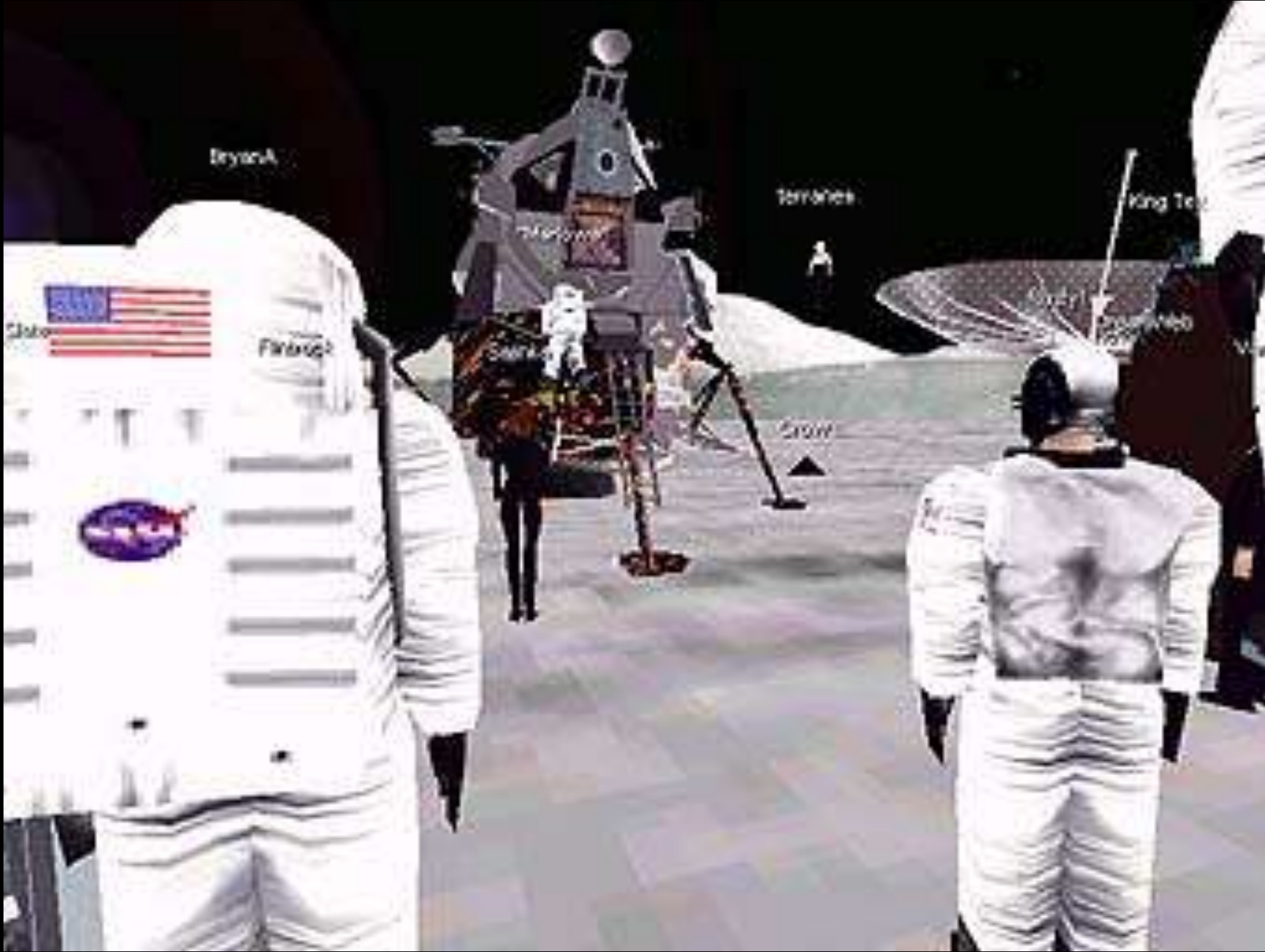
Planzy

Marathon

"tp"  
Digigarden  
Berrick W  
"Shadow Flare"  
Bonnie De Varco  
Timaeus

queenbee







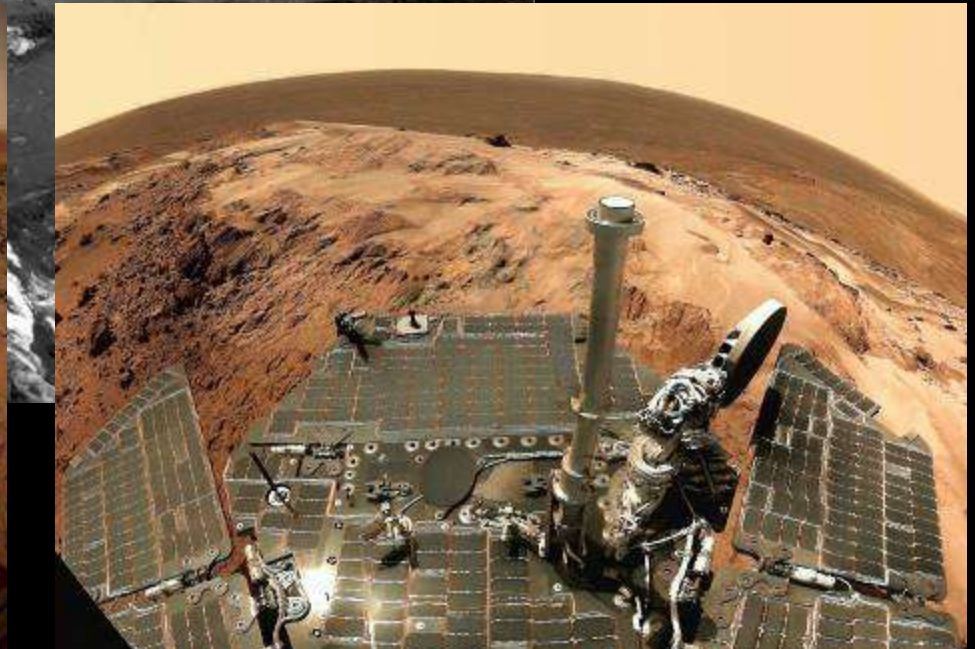


II

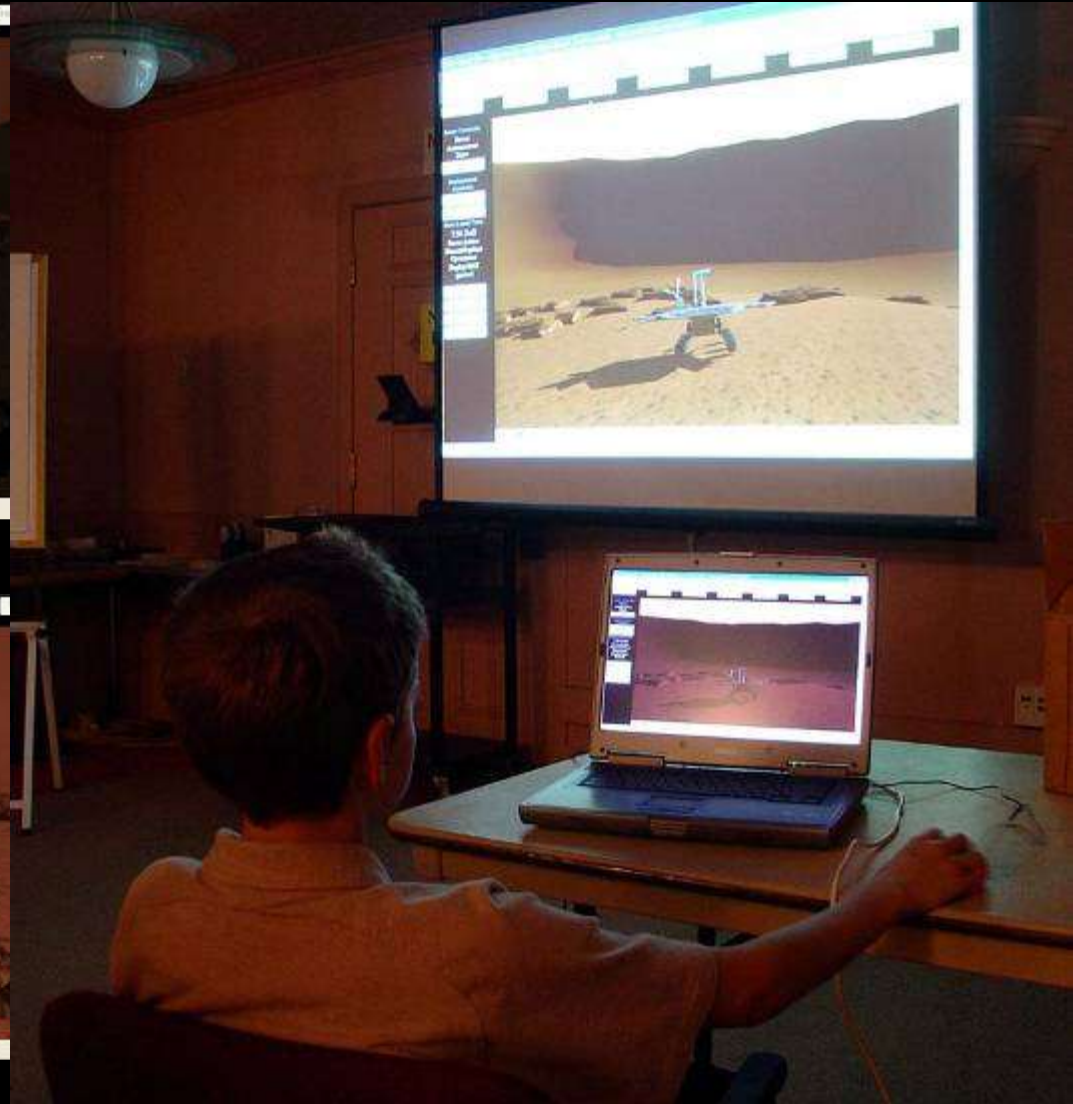
# The Virtual World as a Design Medium in OuterSpace



# Tele-operations on Mars



# DriveOnMars: DigitalSpace's Virtual MER Tele-operator for the public (2004)



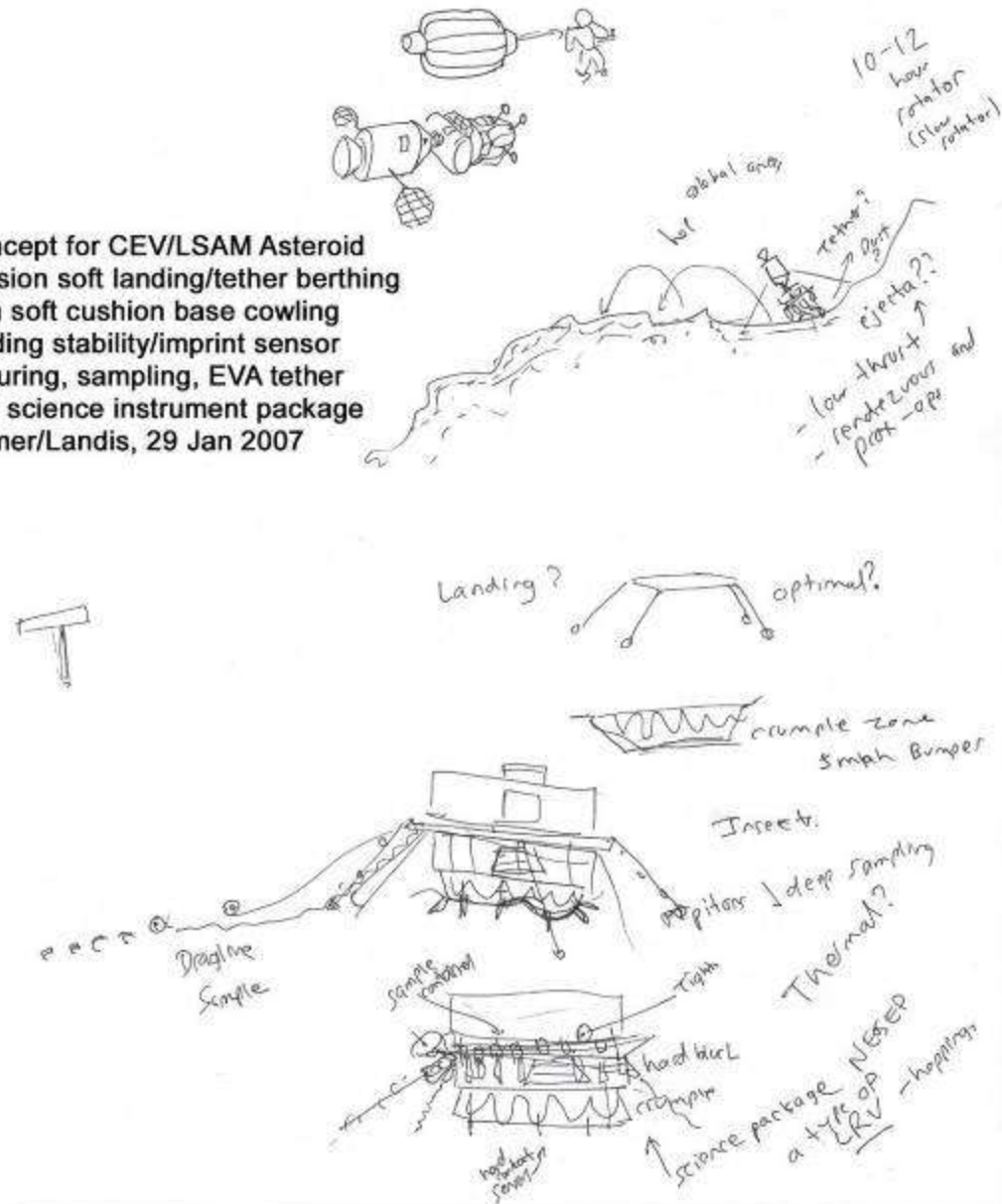


# DigitalSpace drive-able simulation: establishing key issues (navigation, thermal load)



# Designing a Deep Solar System Mission: Asteroids

Concept for CEV/LSAM Asteroid  
Mission soft landing/tether berthing  
with soft cushion base cowl  
landing stability/imprint sensor  
securing, sampling, EVA tether  
and science instrument package  
Damer/Landis, 29 Jan 2007

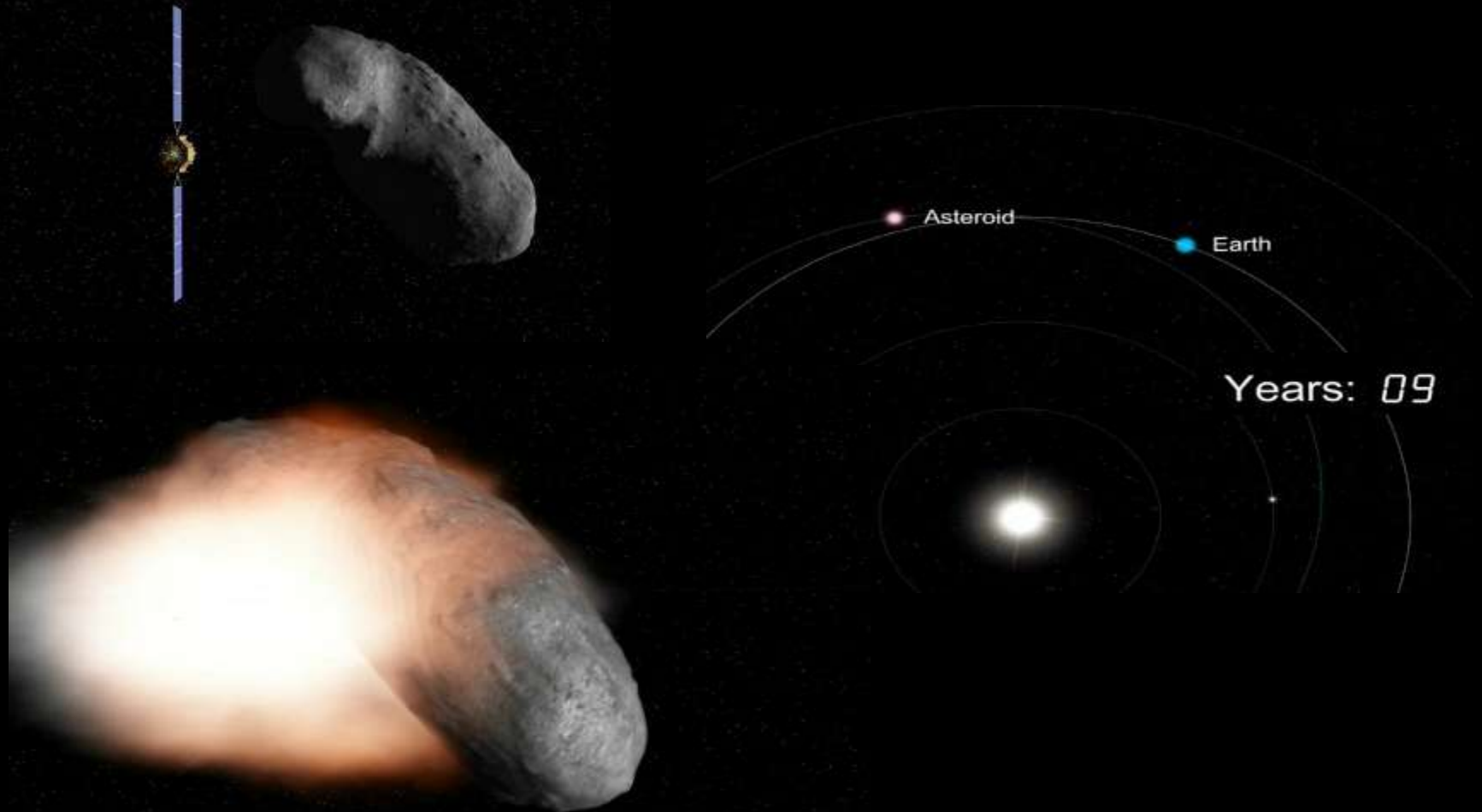


# Fully realized concept mission for NASA: 2007





# Saving the Earth: Asteroid Deflection Campaign: For Rusty Schweickart/B612 Foundation: 2008



# Spacewalk simulations as cognitive enhancement training design tools: 2009



III

Avatars walk from  
Cyberspace out into  
StreetSpace

# 2003: Avatars meet Fashion

(Fashion Institute of Technology, NY, with Daria Dorosh, Galen Brandt and Steve DiPaola)





# 2006: The iDoublet Project

## Avatars walking out into StreetSpace



# Next phase: 2007-08, Cyberwearz “virtual” garment clothing my Second Life avatar



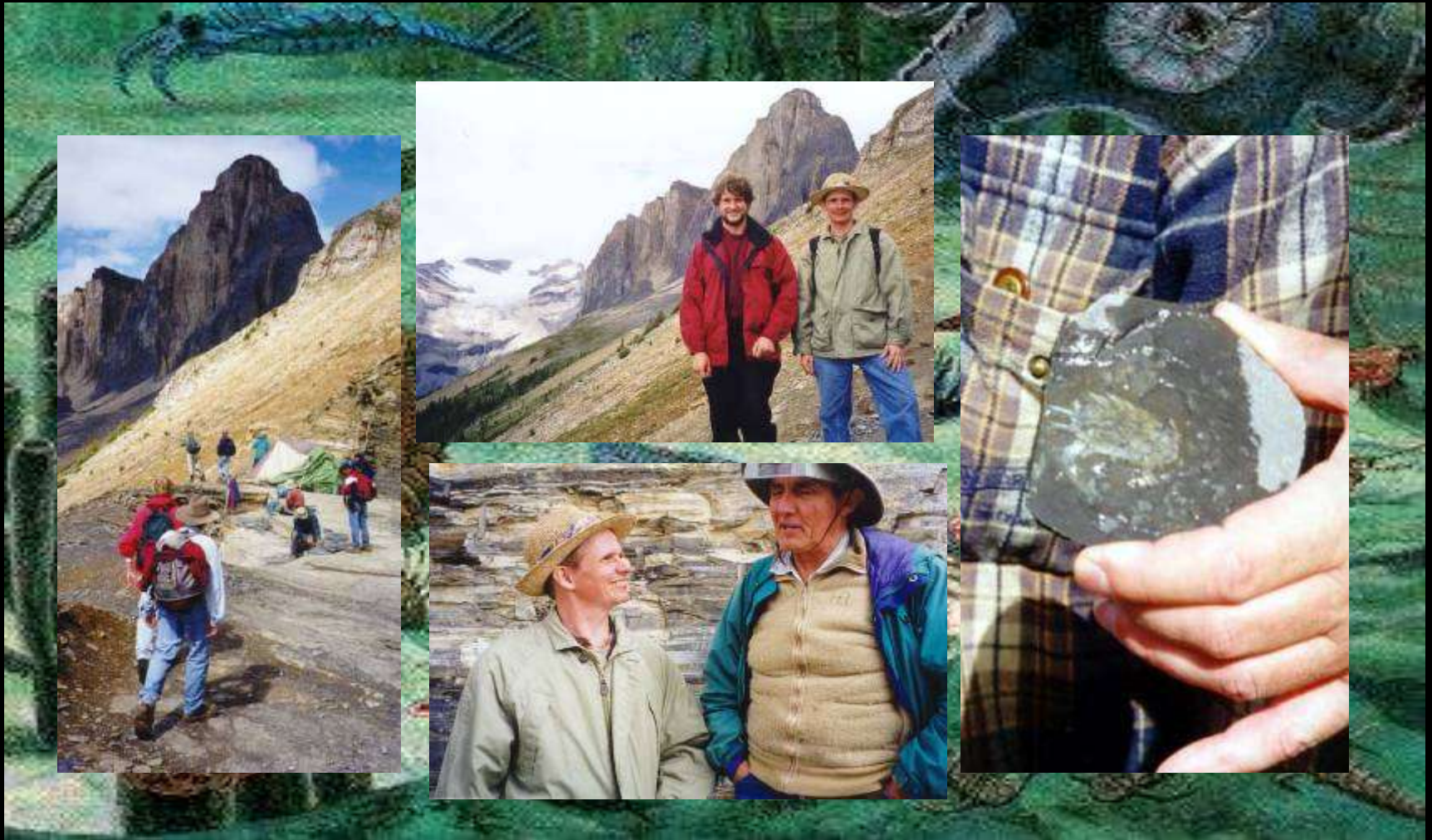
# IV

And Finally, will Virtual Worlds  
evolve into the ultimate  
design space: BioSpace?



**1997, Banff Canada:**

*Digital Burgess, A quest for the origin of evolution's first big designs in the "Cambrian Explosion"*



# Artificial Life: Concept begins in the 1940s, field named in the 1980s, progress through the 1990s, 2000s





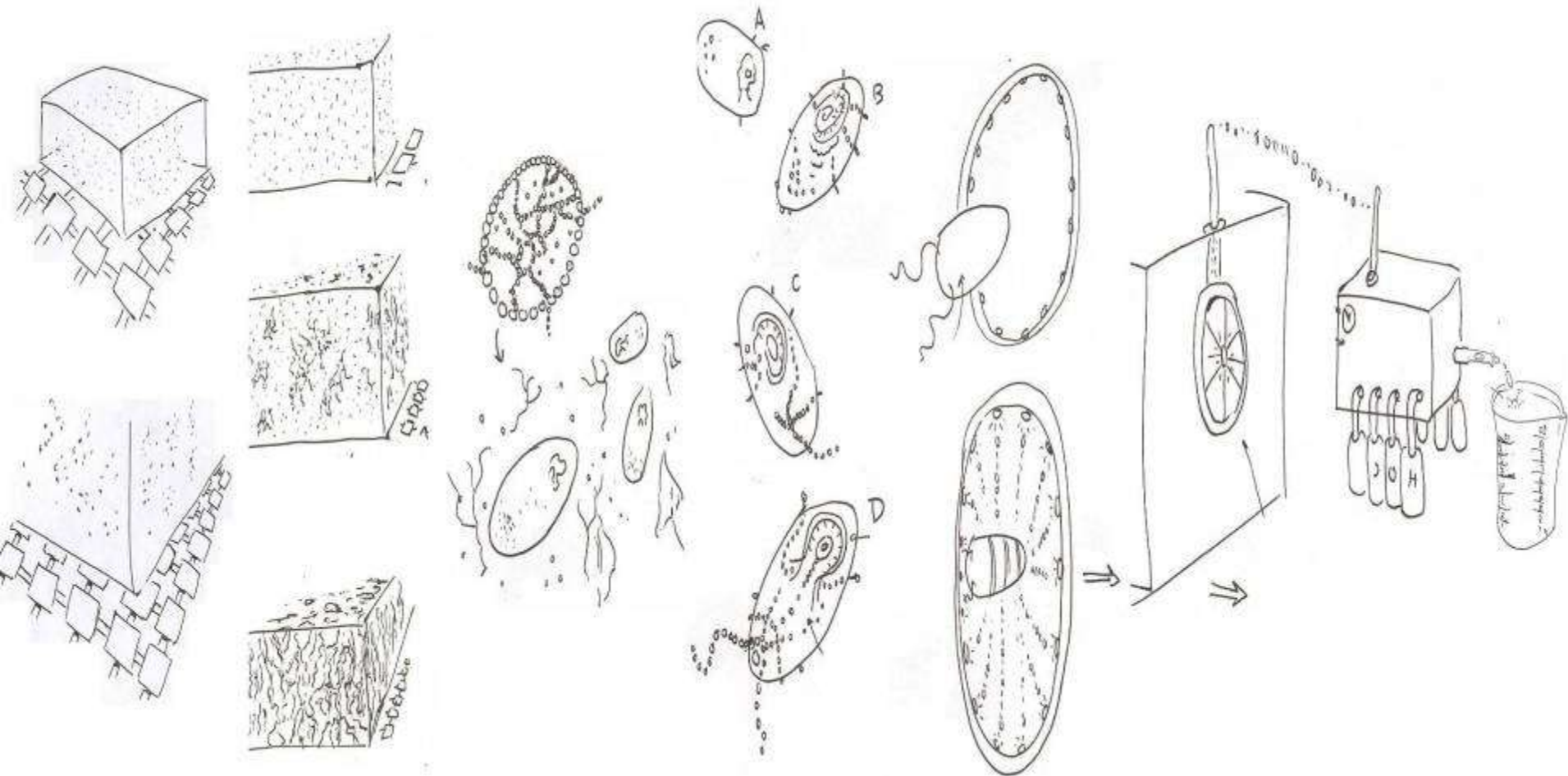
# Spore by Will Wright

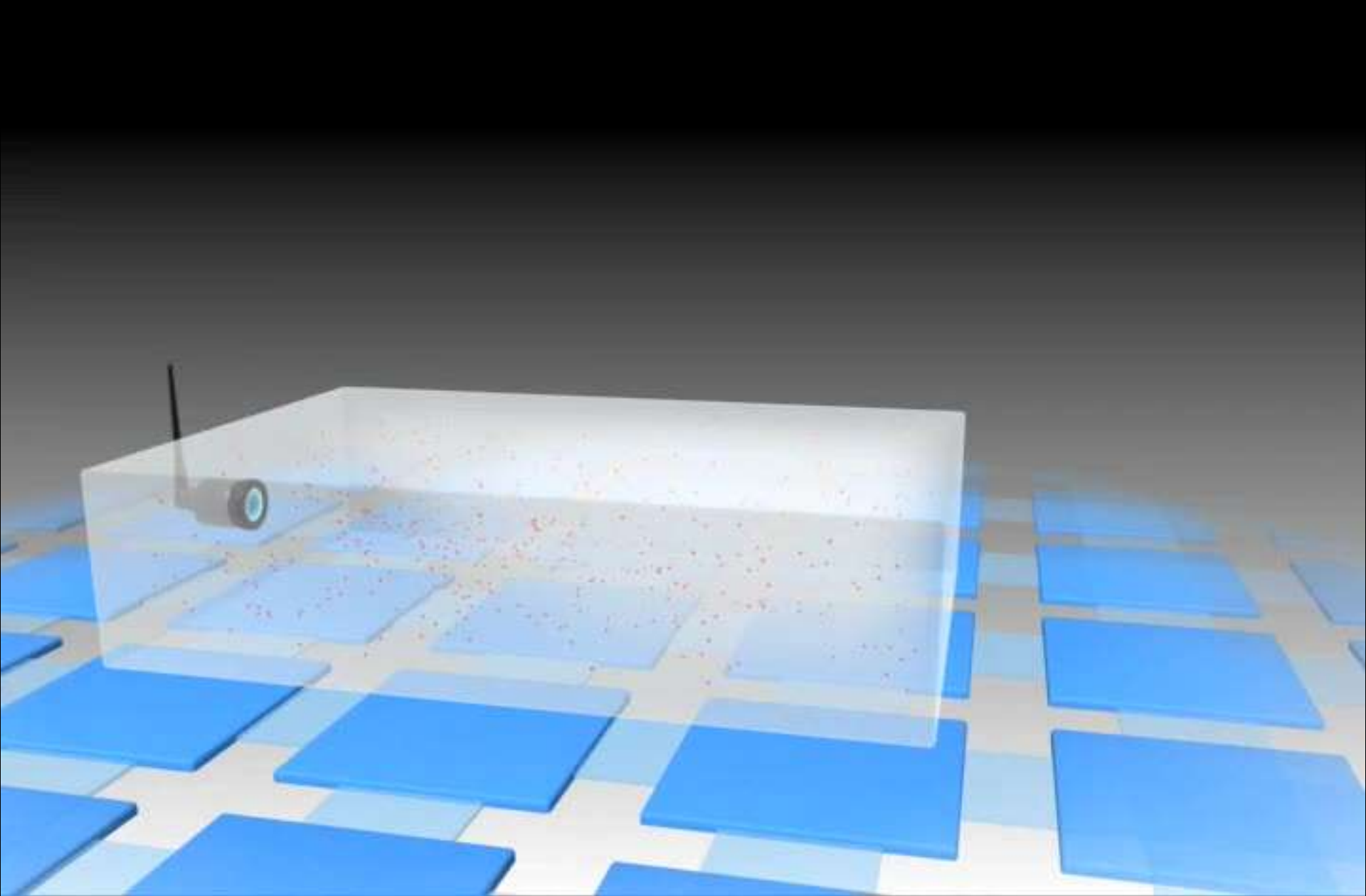
*Not evolution or artificial Life – but inspiring a generation on bio-inspired design principles*

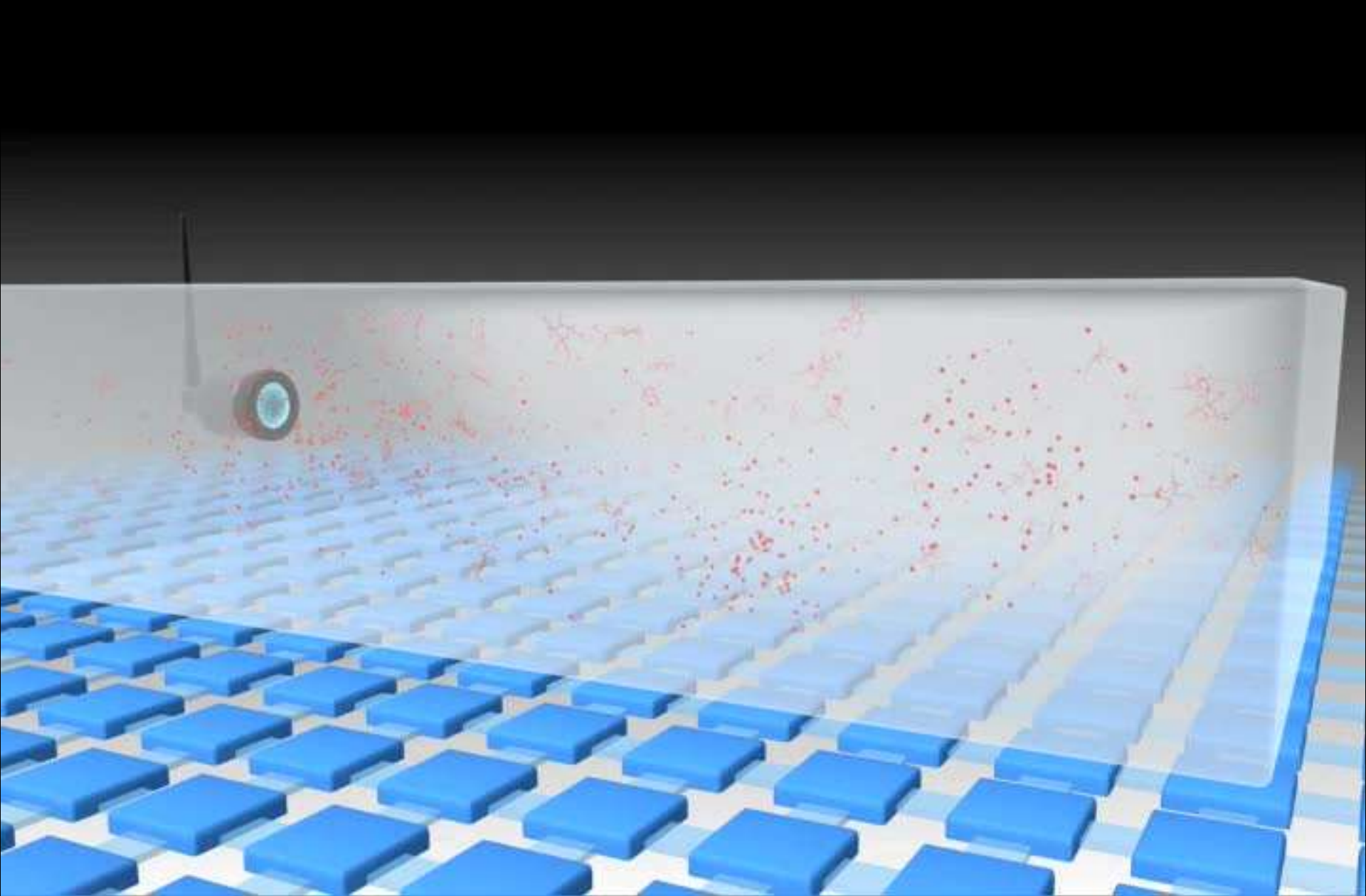




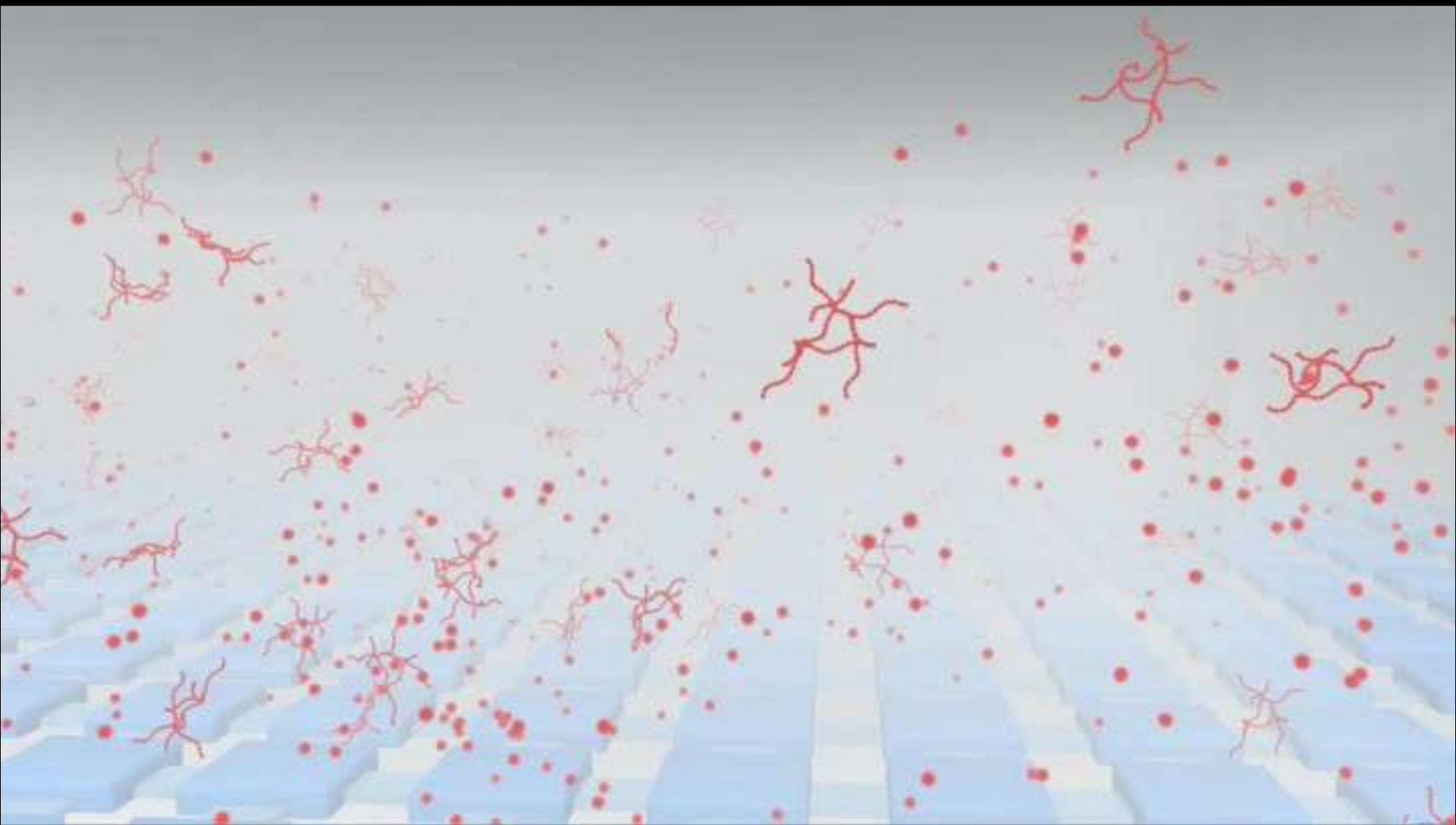
2000, The EvoCra:  
**A Thought Experiment**  
**Creating an Evolution Machine**  
*Movie for Sharing Concept*



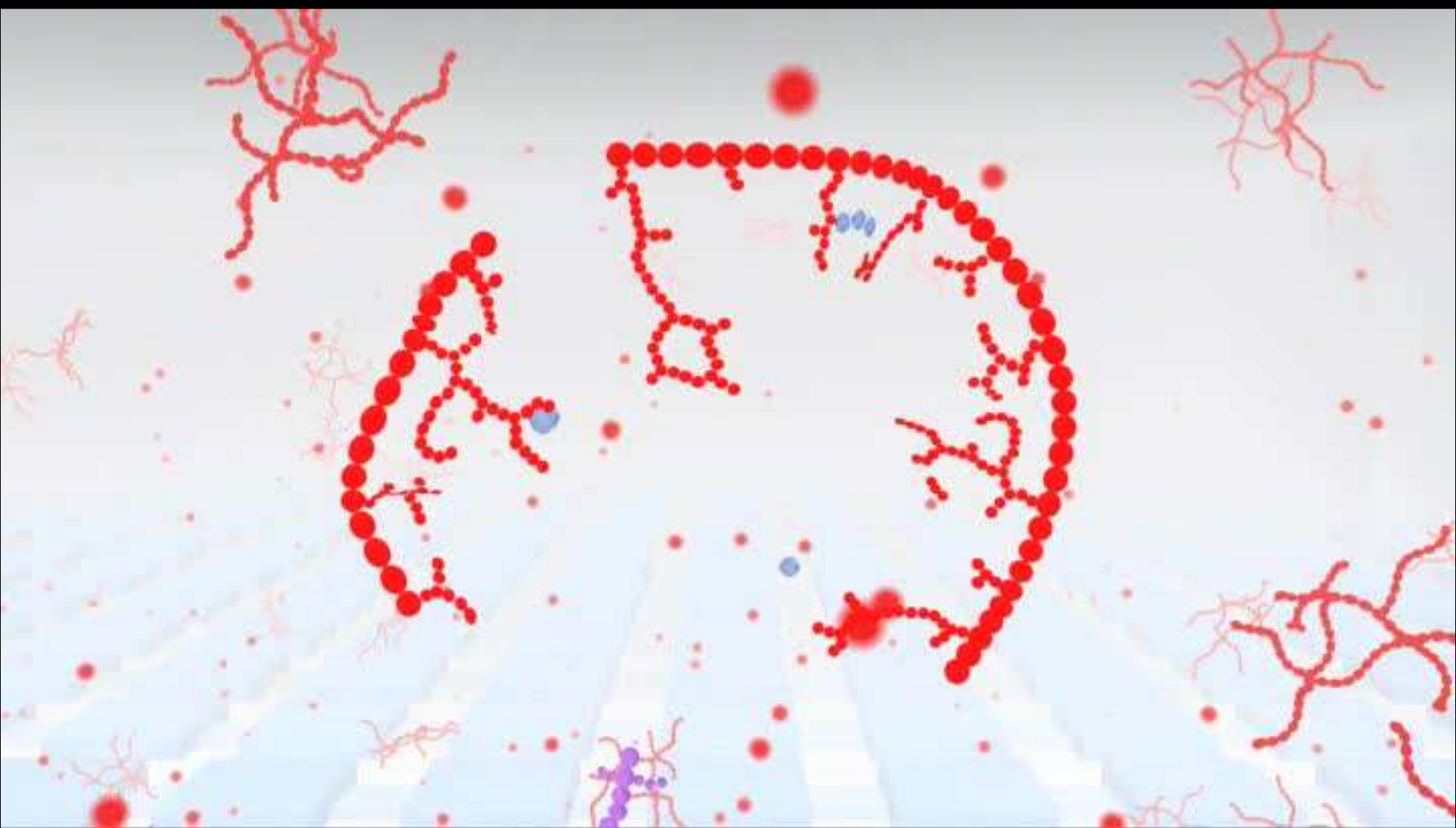




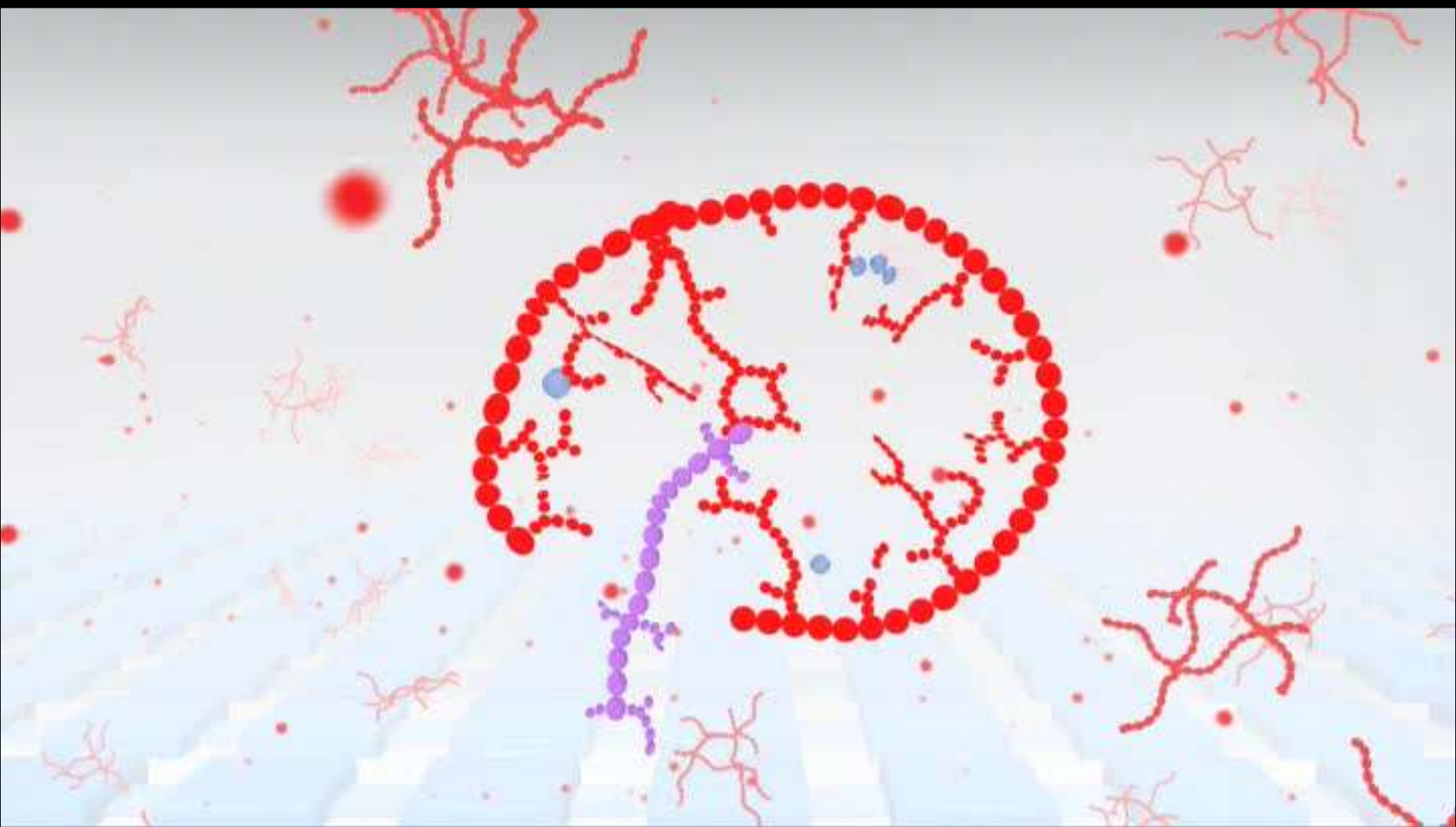


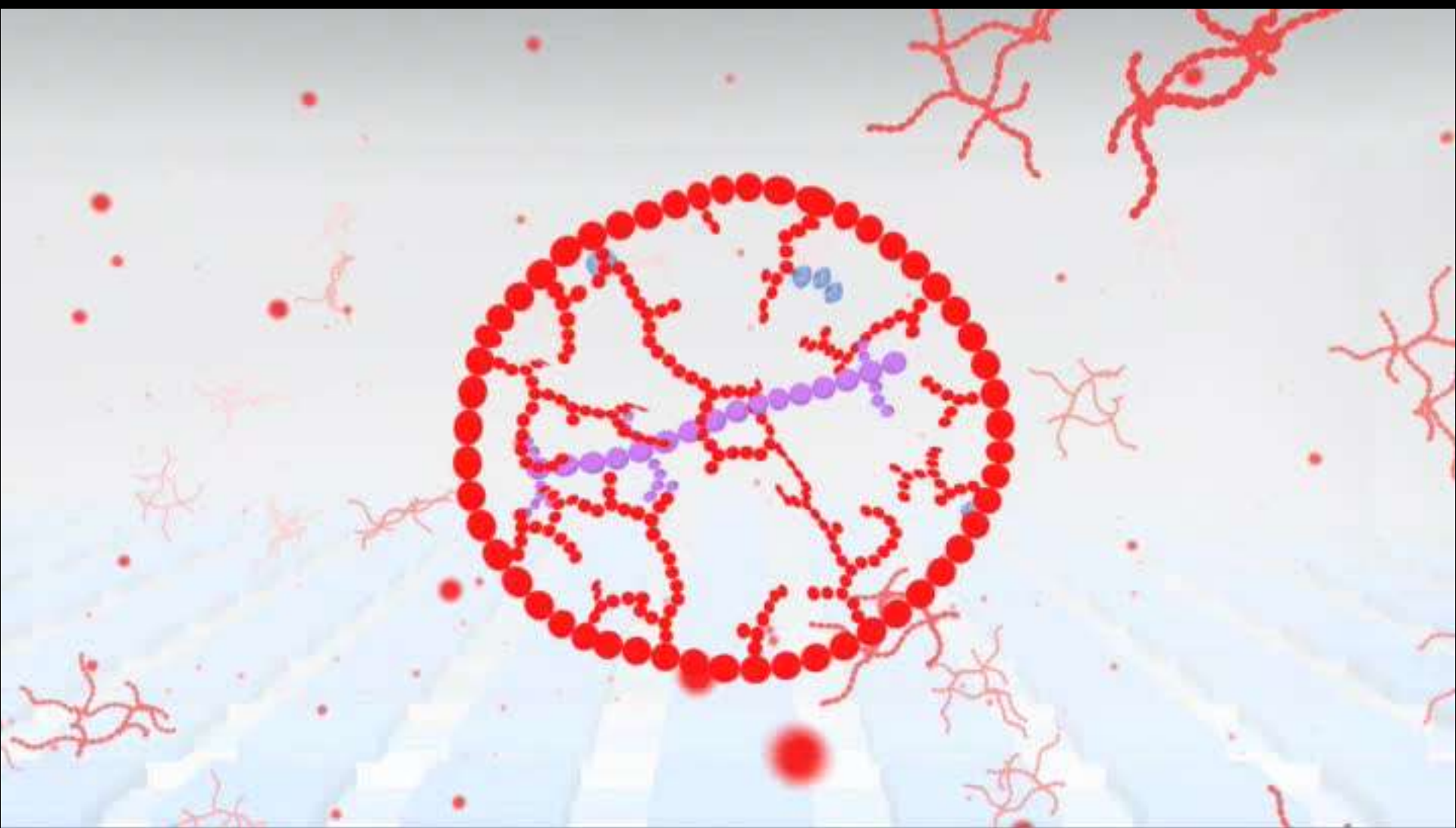


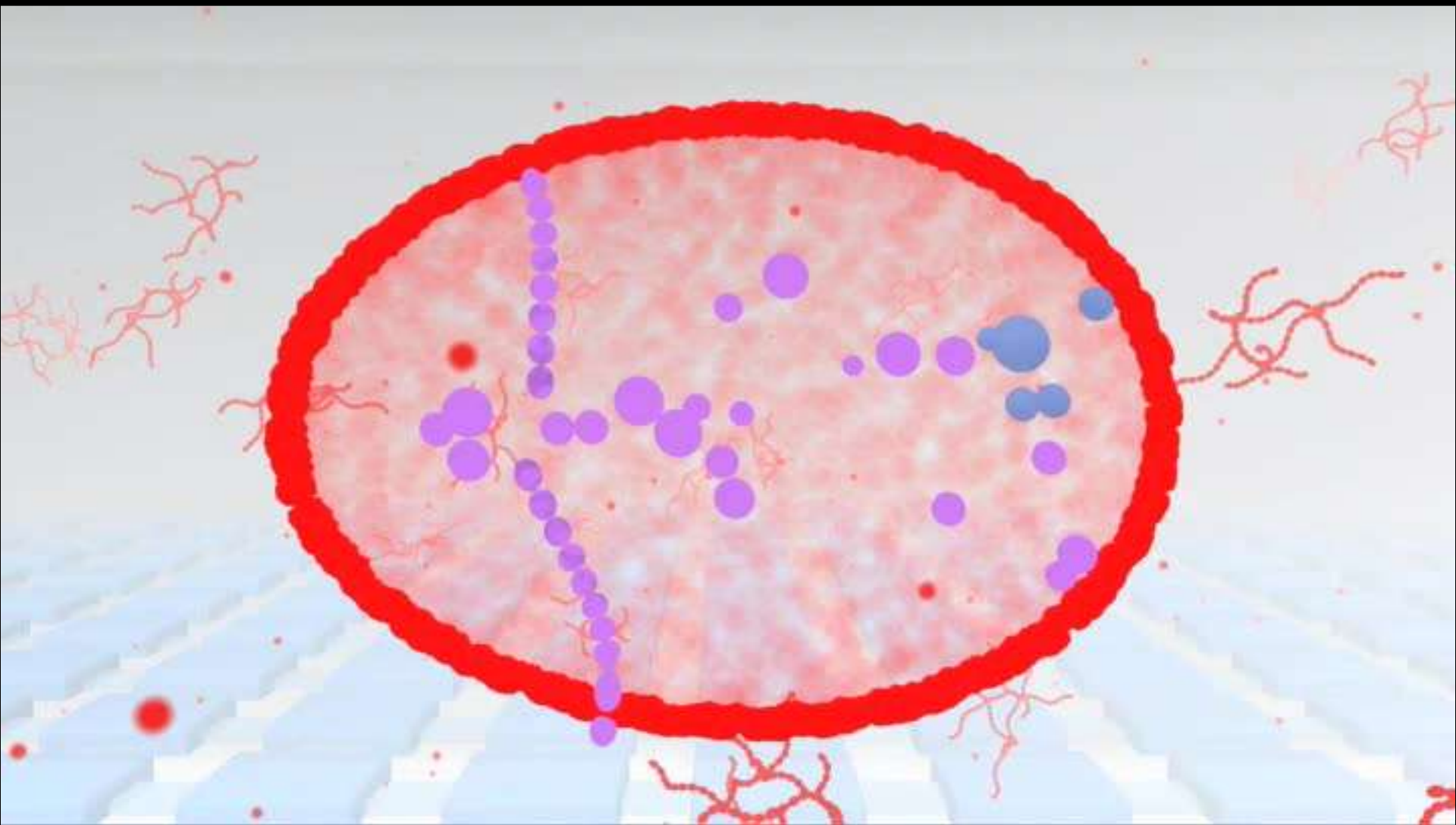




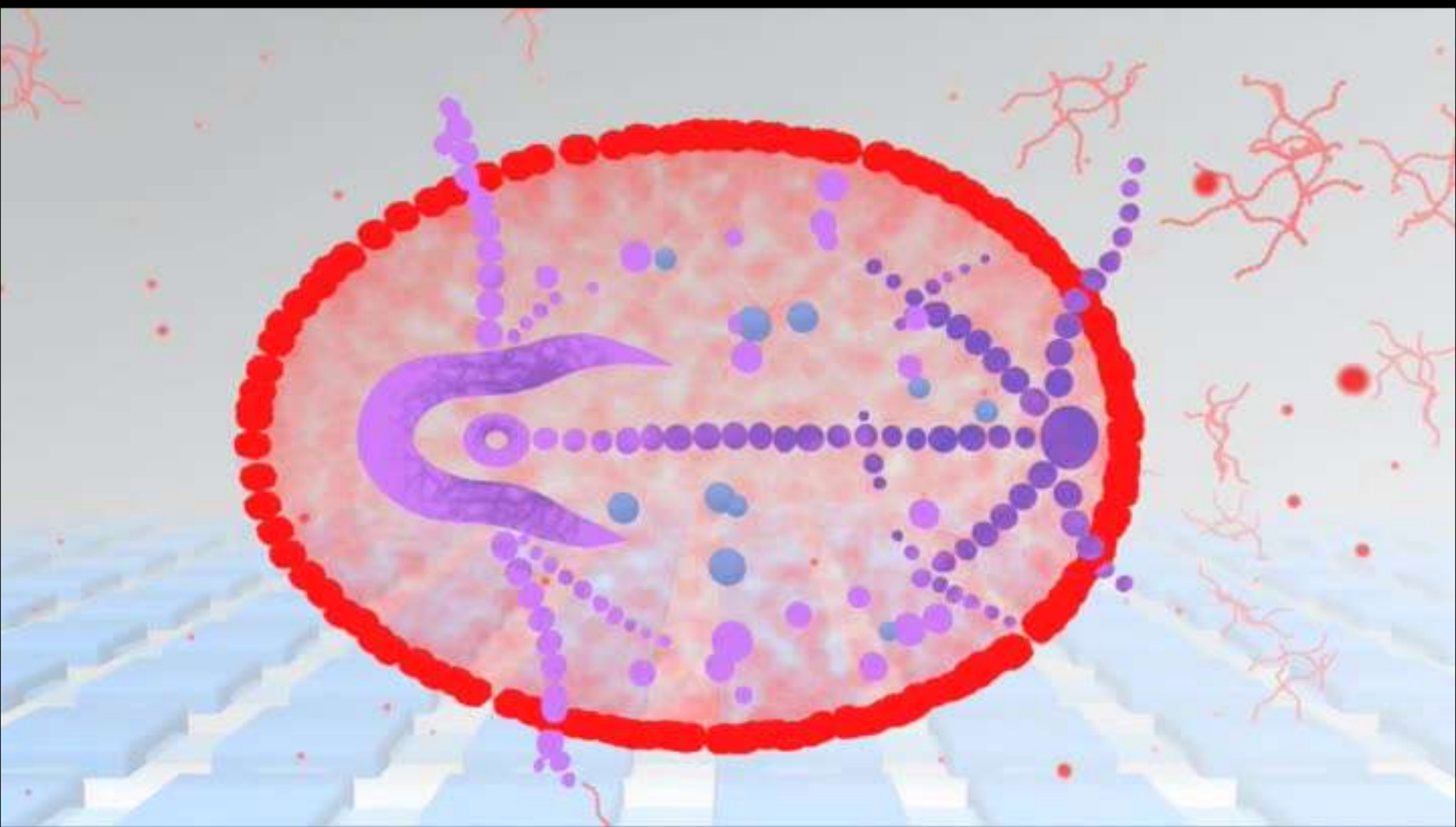


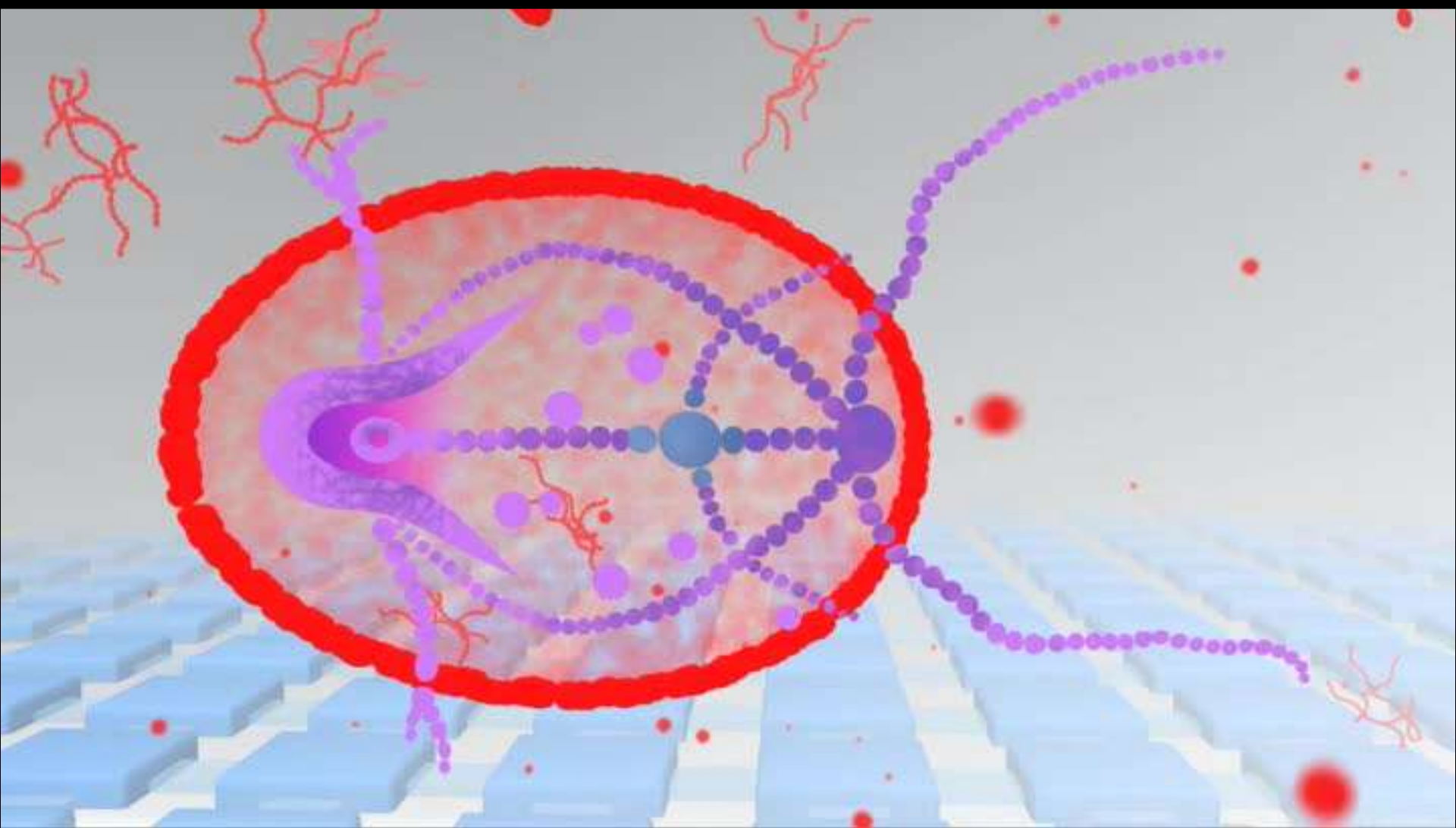


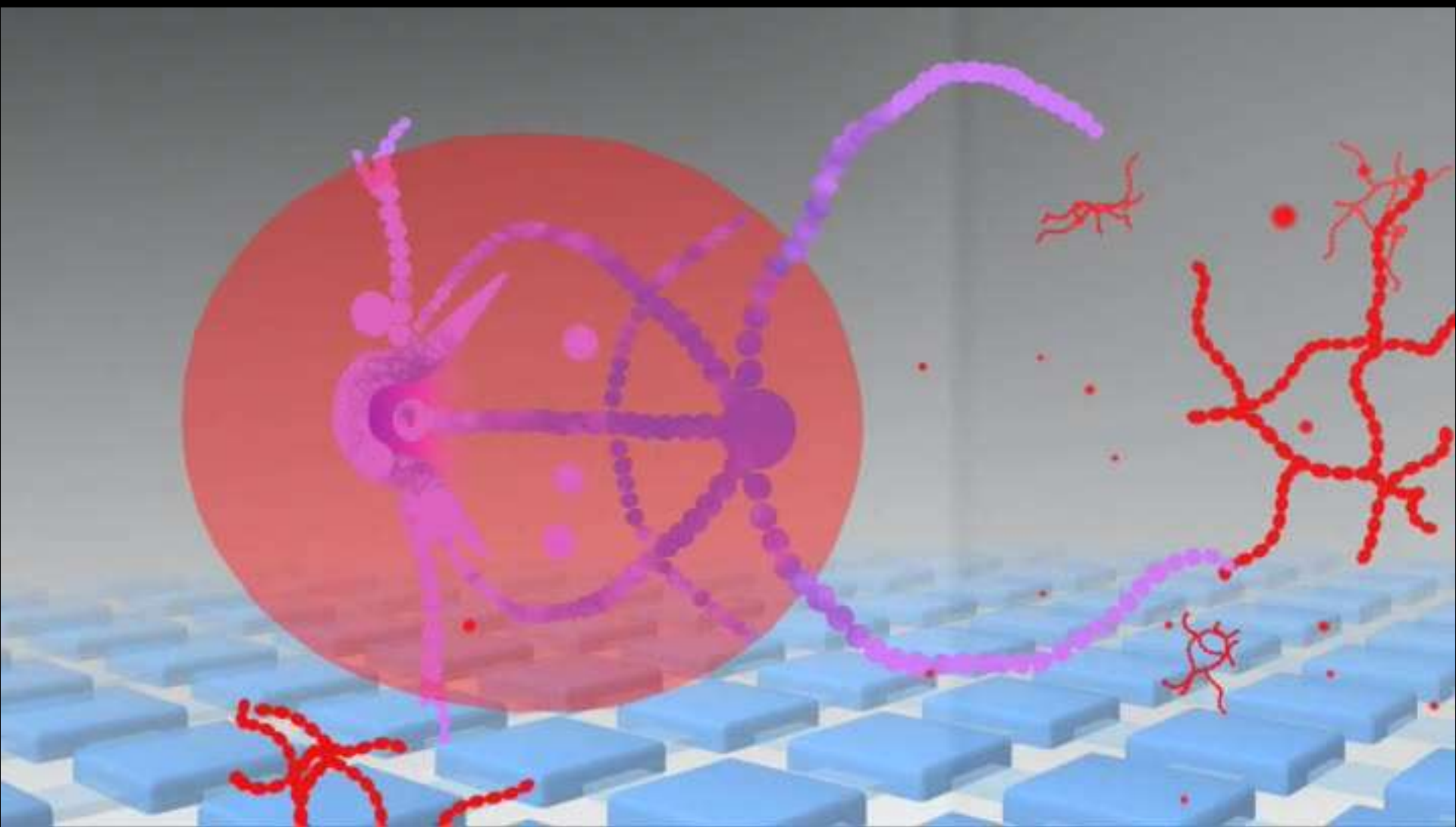




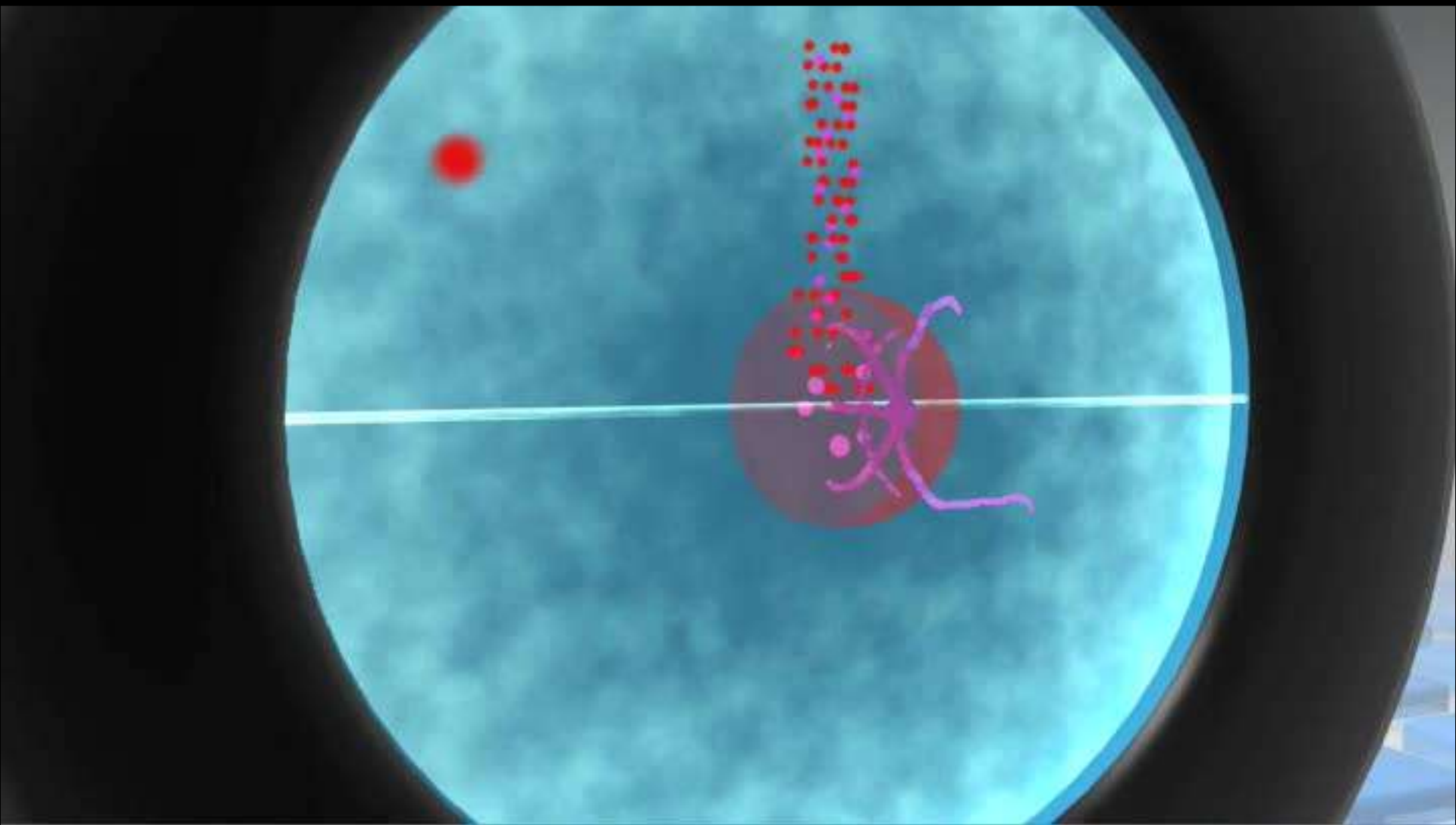


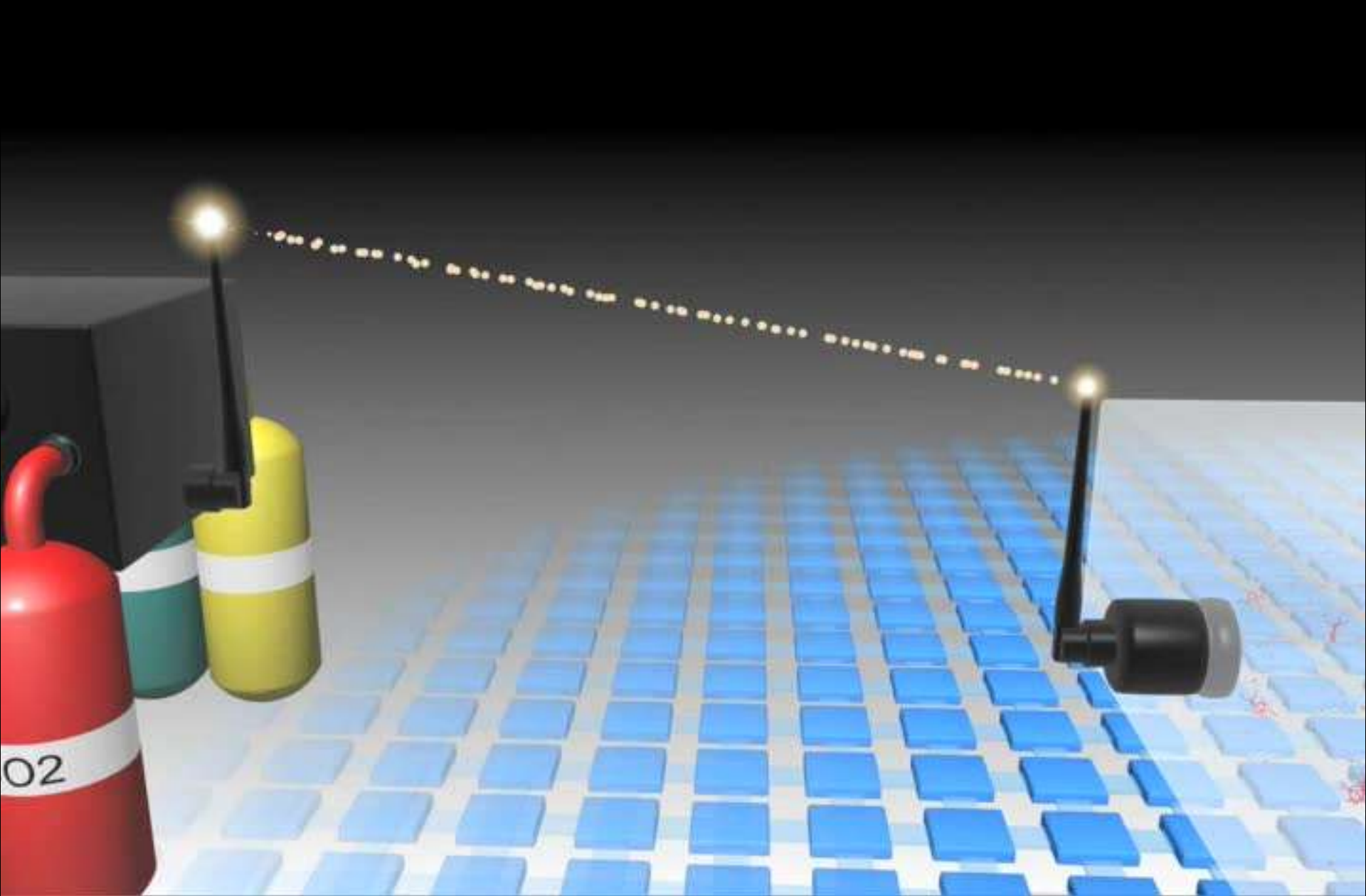


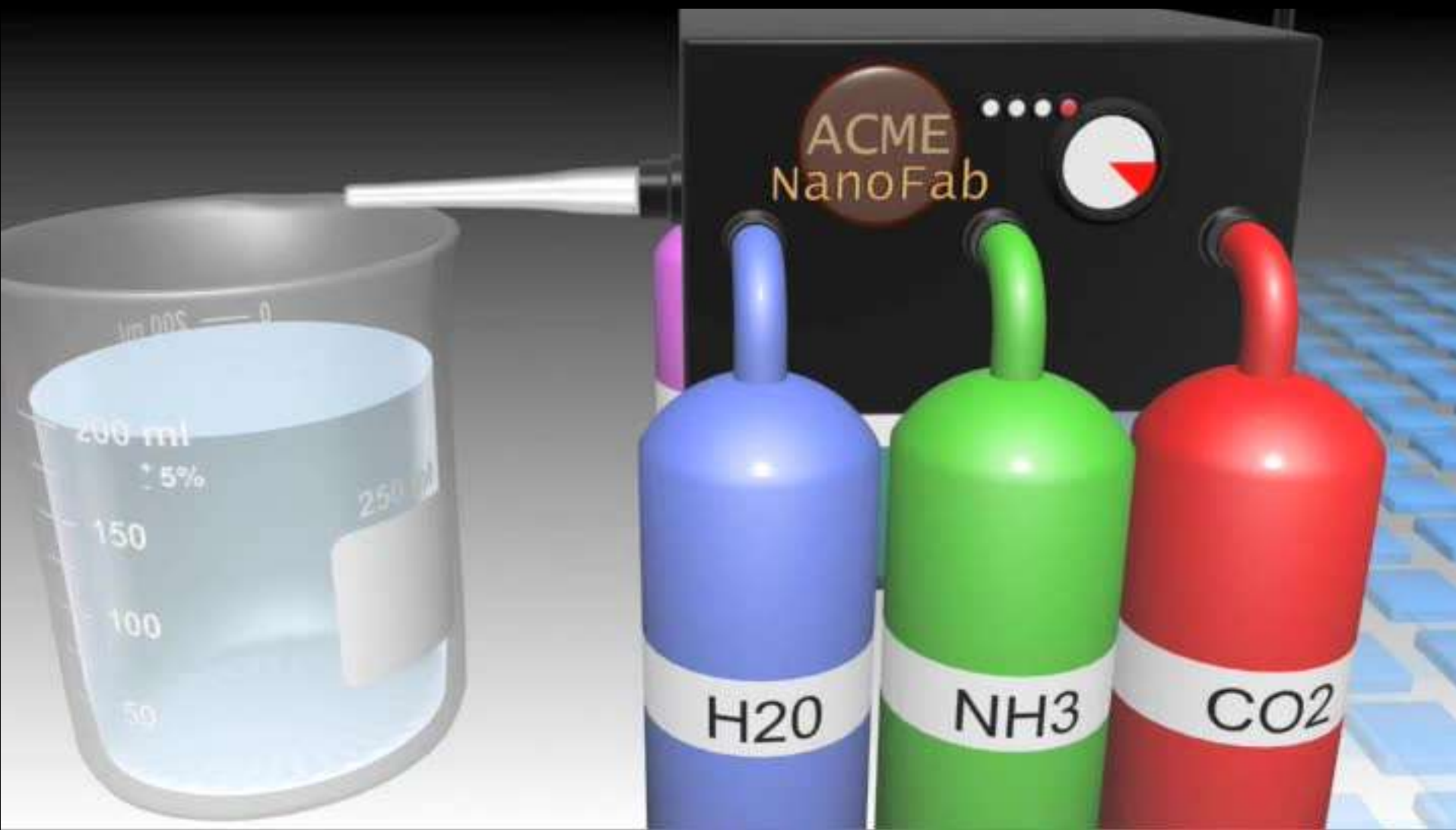




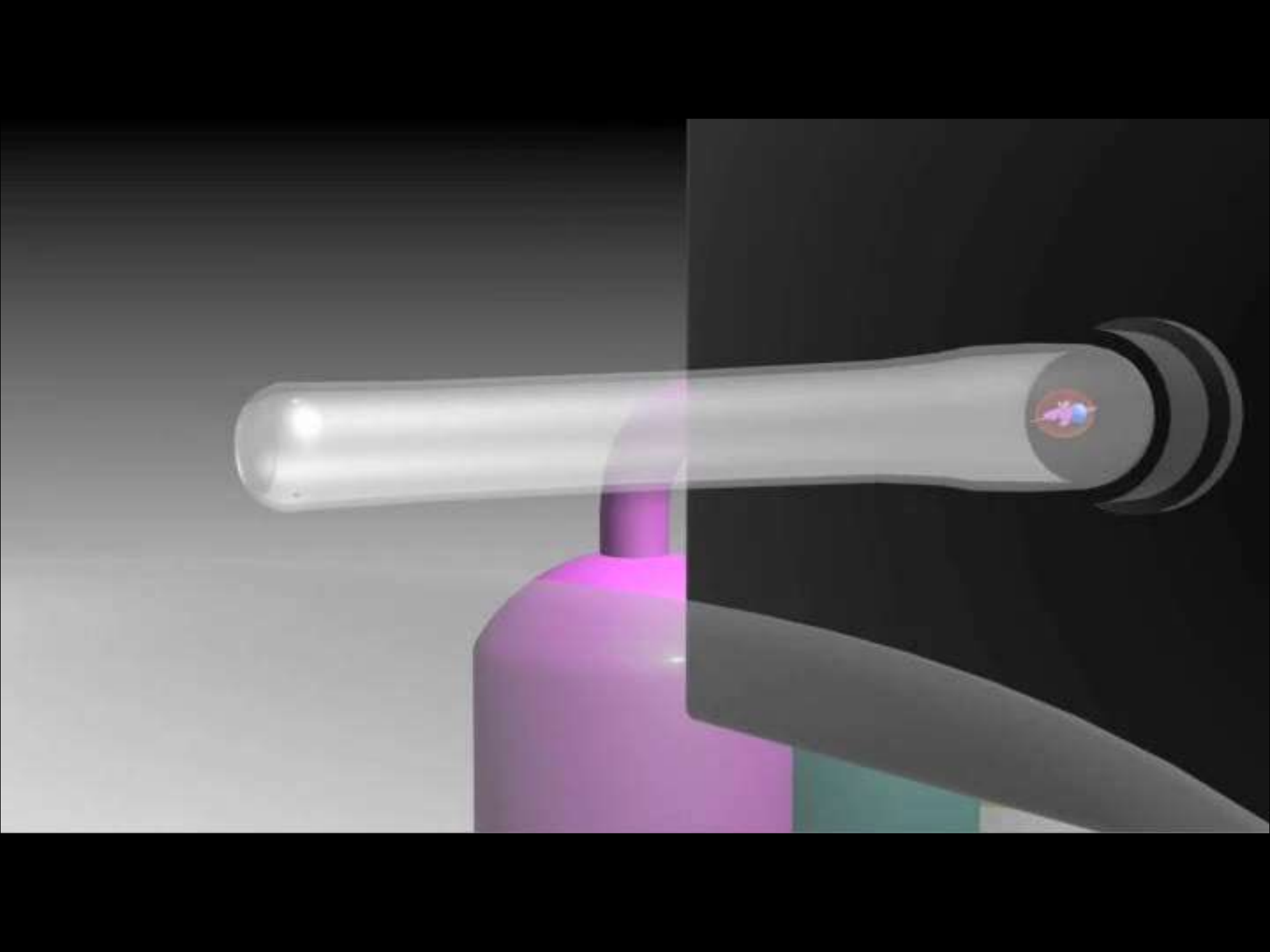


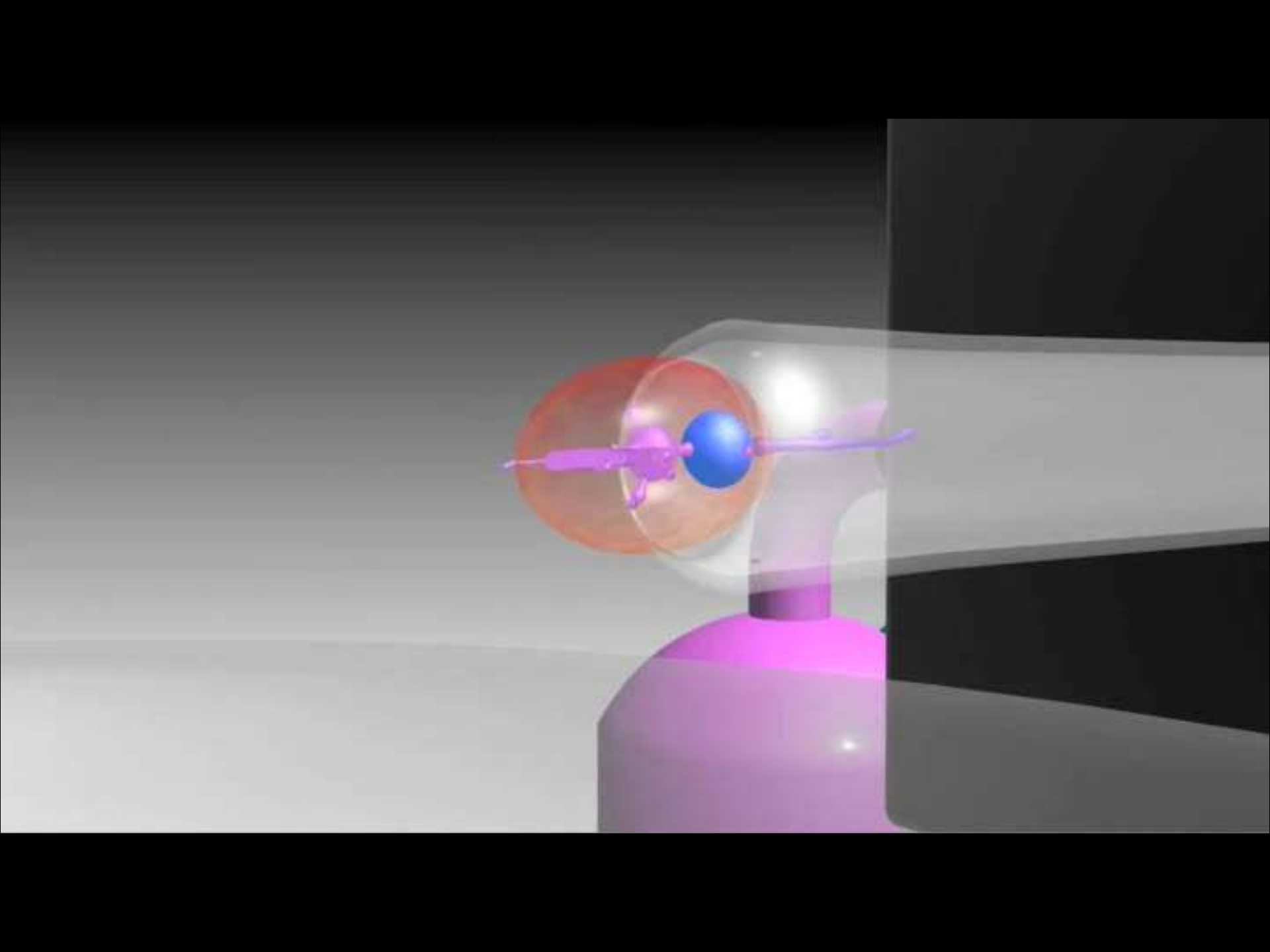


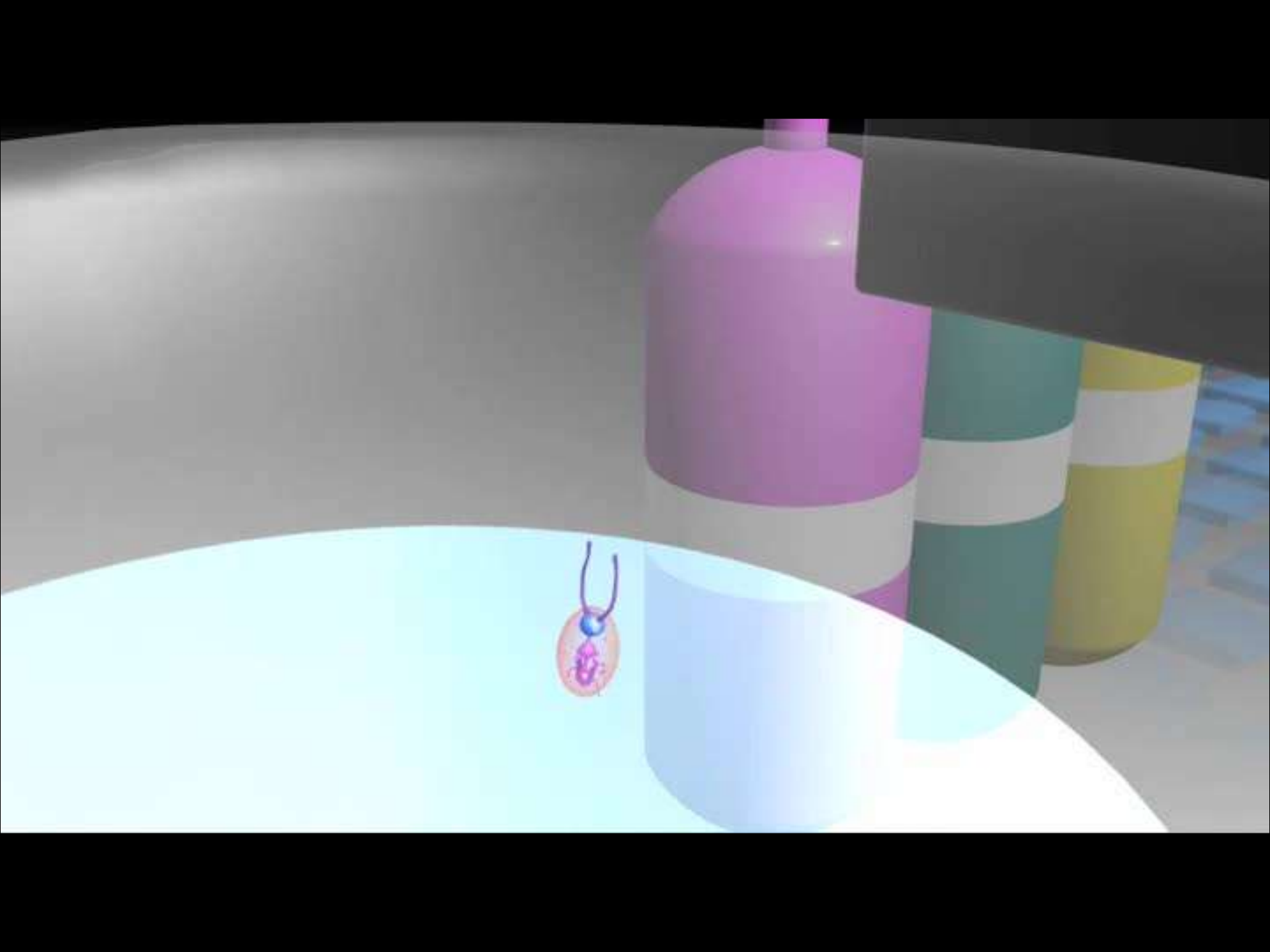




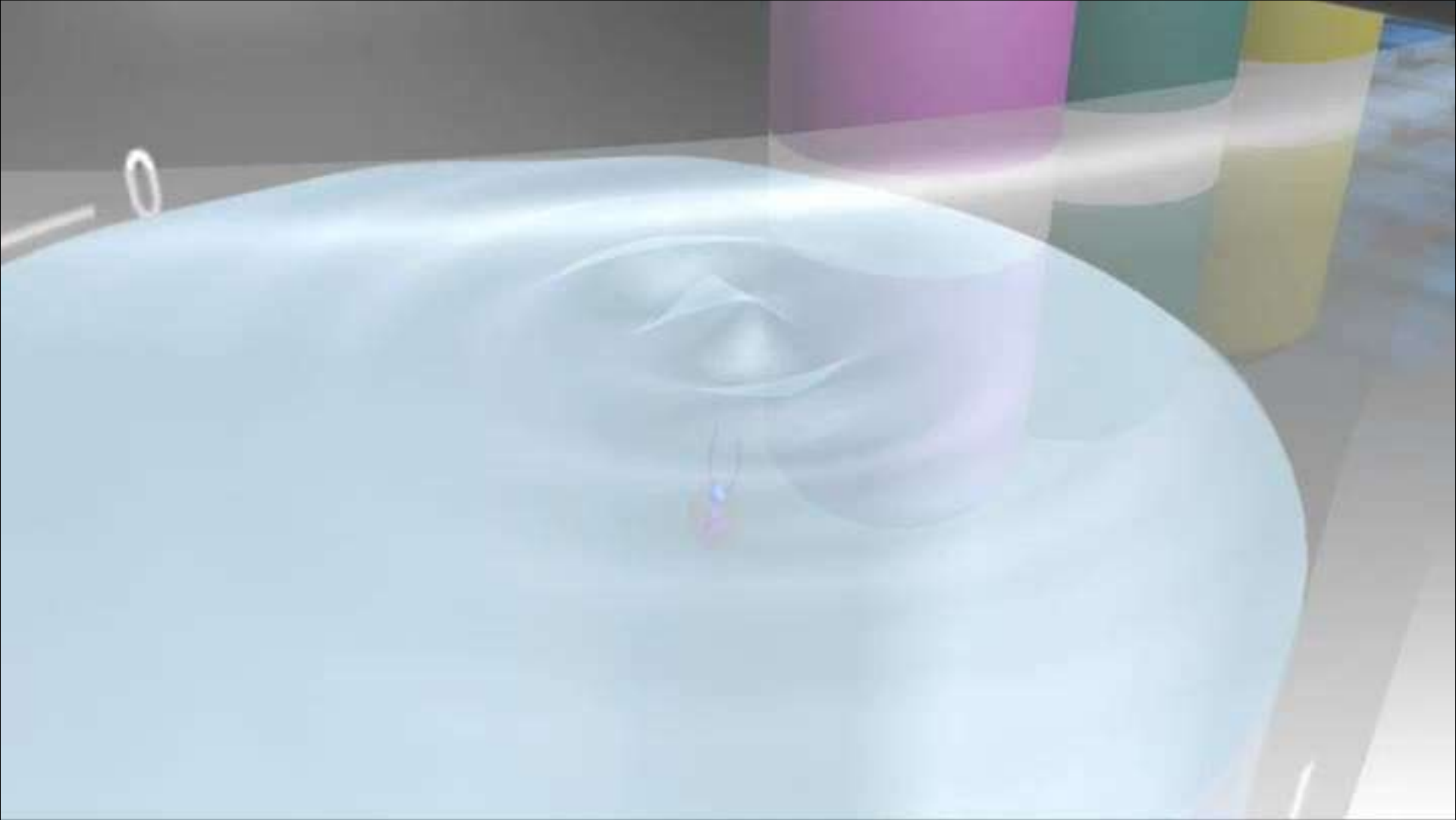


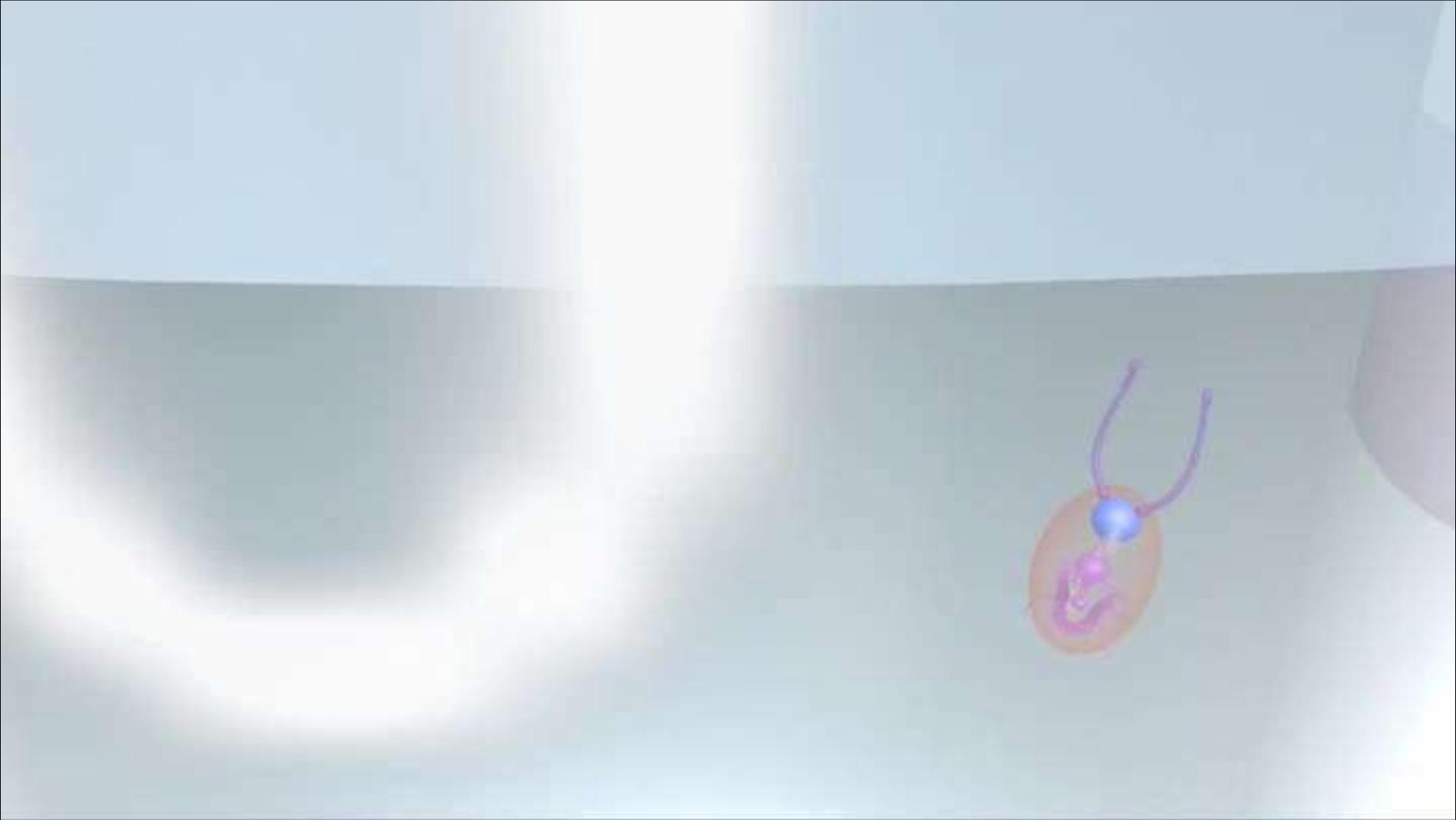


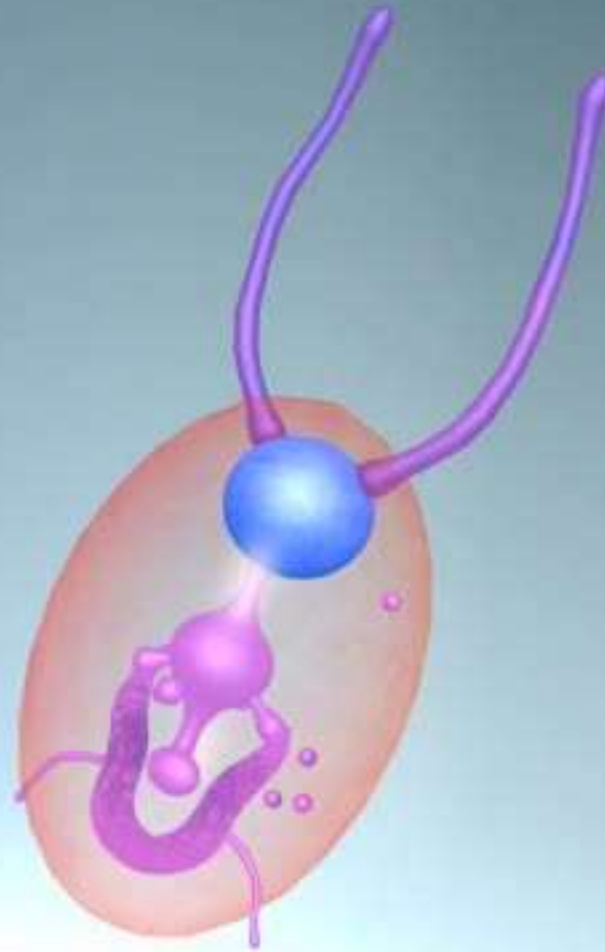




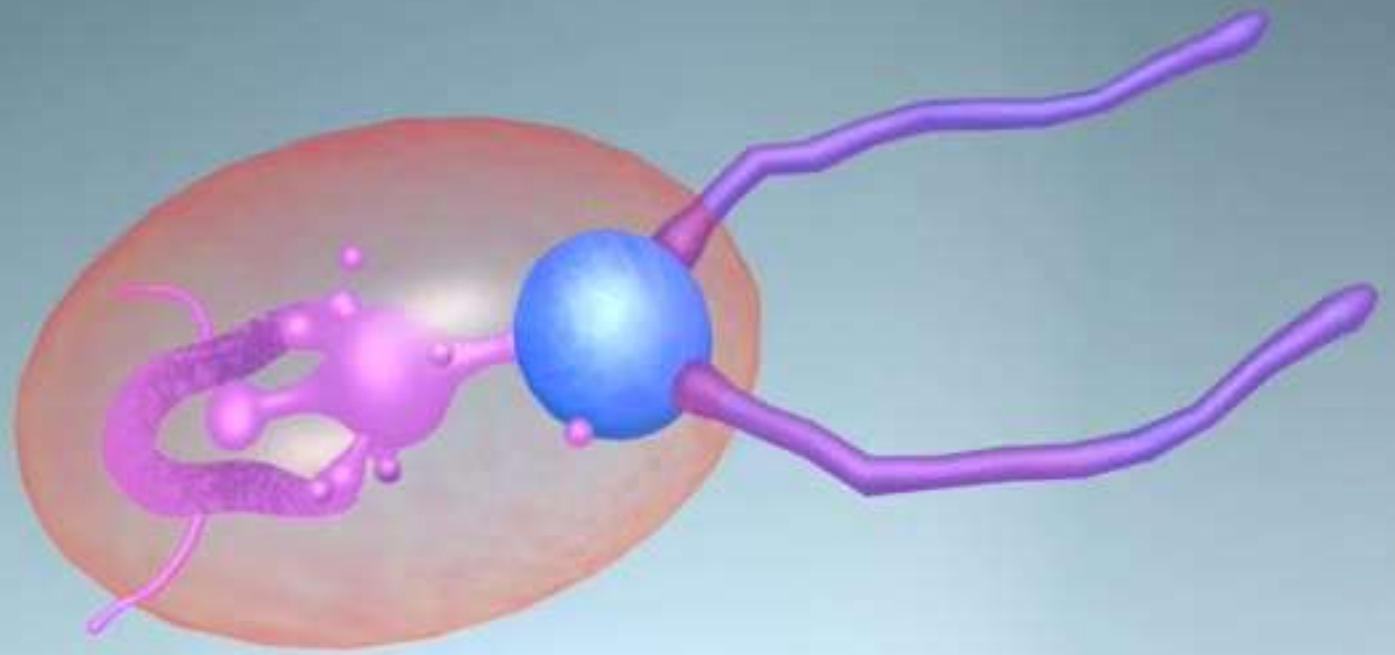


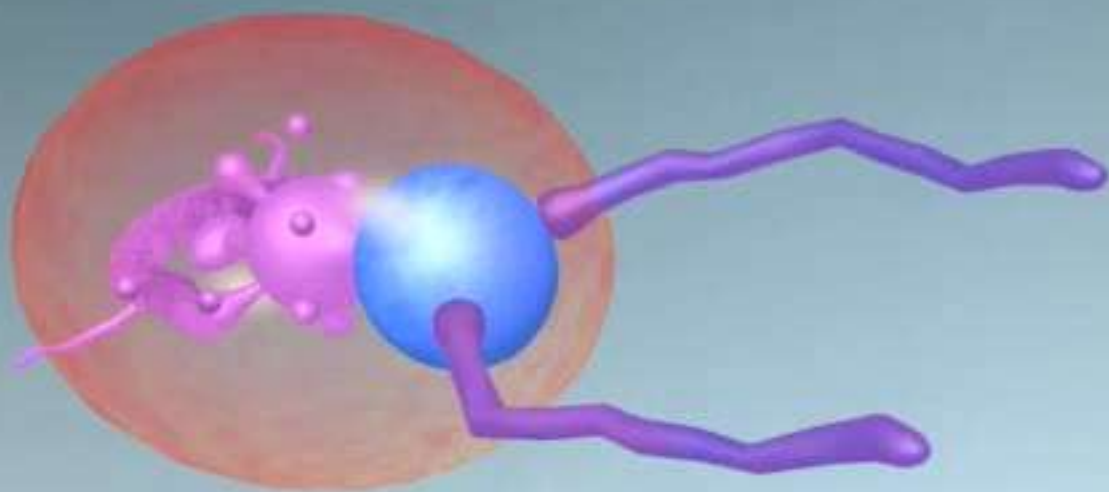


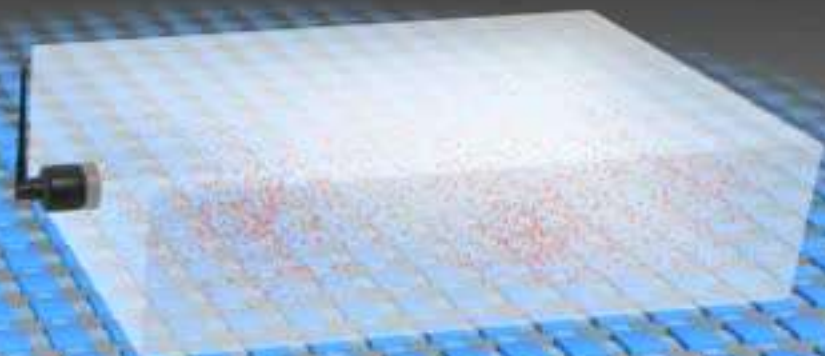
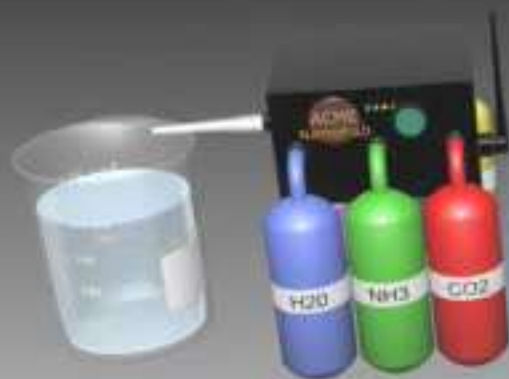
















# EvoGrid:

## Philosophical Implications

Will biologists (one day) declare these synthetic biological environments “worthy of study as a living system”?

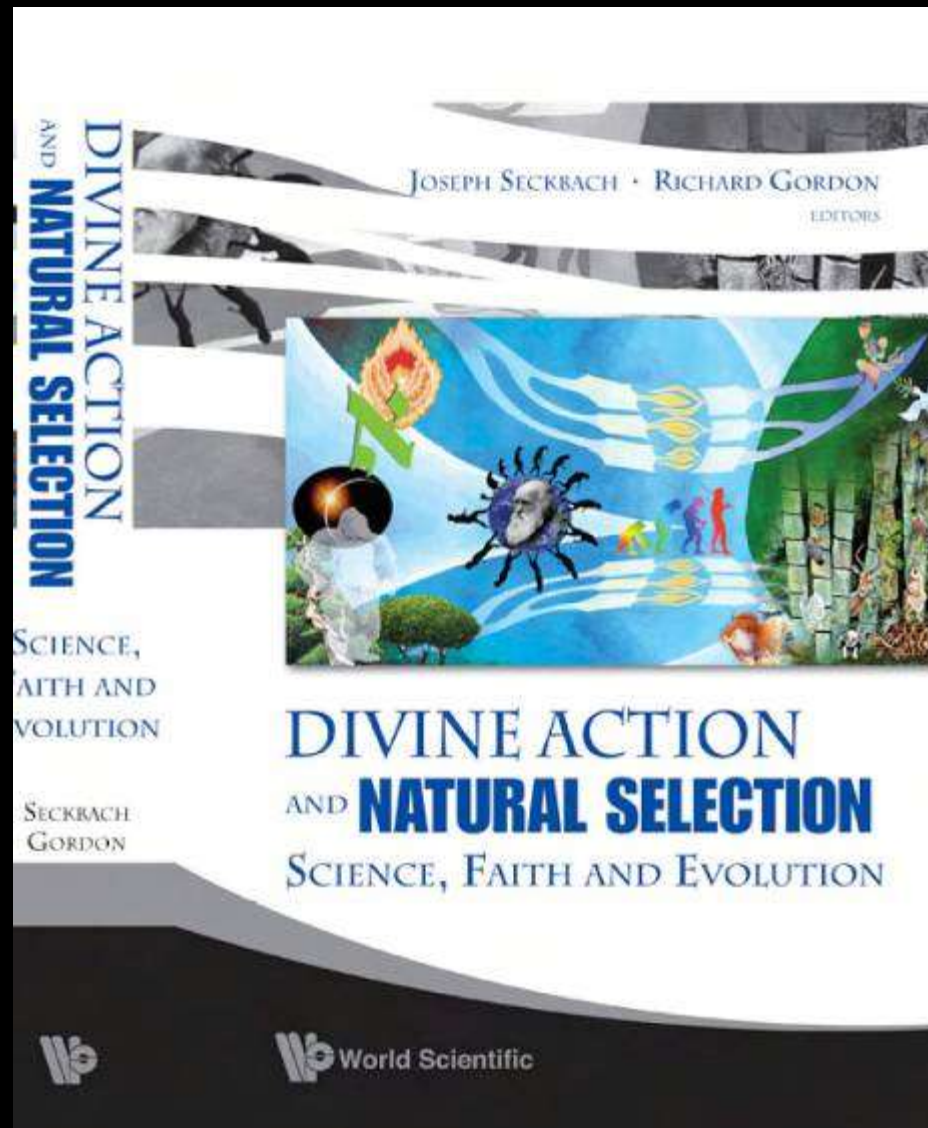
Would an EvoGrid and harnessing the power of evolution become a design tool for Humanity in the 21<sup>st</sup> Century?

Would it become a mechanism for life’s expanded Design into the Solar System or for the survival and extension of life on Earth?

How does a successful origin of life simulation affect our sense of God, our Design in the Universe and the future of life?

# New Book: Divine Action and Natural Selection

Damer: *The God Detector*



# Final Thought





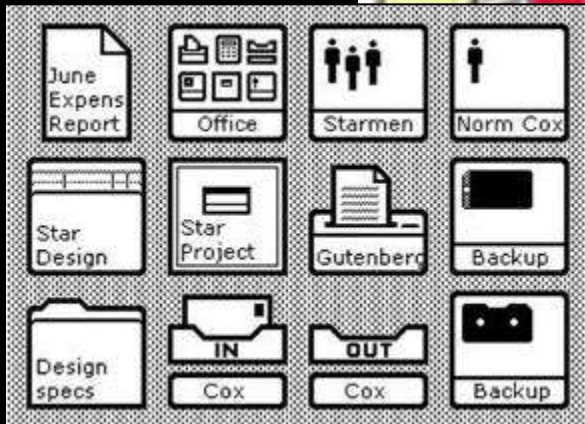
# Bruce Damer

*Enter my design space at [www.damer.com](http://www.damer.com)*



# Bruce Damer – 2000s

*DigiBarn Computer Museum – tracing the emergence of personal, interactive computing*



# Resources and Acknowledgements

Avatars Conferences, Contact Consortium: <http://www.ccon.org>

DigitalSpace 3D simulations and all (open) source code at:

<http://www.digitalspace.com>

Project EvoGrid at: <http://www.biota.org> <http://www.evogrid.org>

Cyberwearz: <http://www.cyberwearz.com>

History of virtual worlds: <http://www.vwtimeline.org>

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