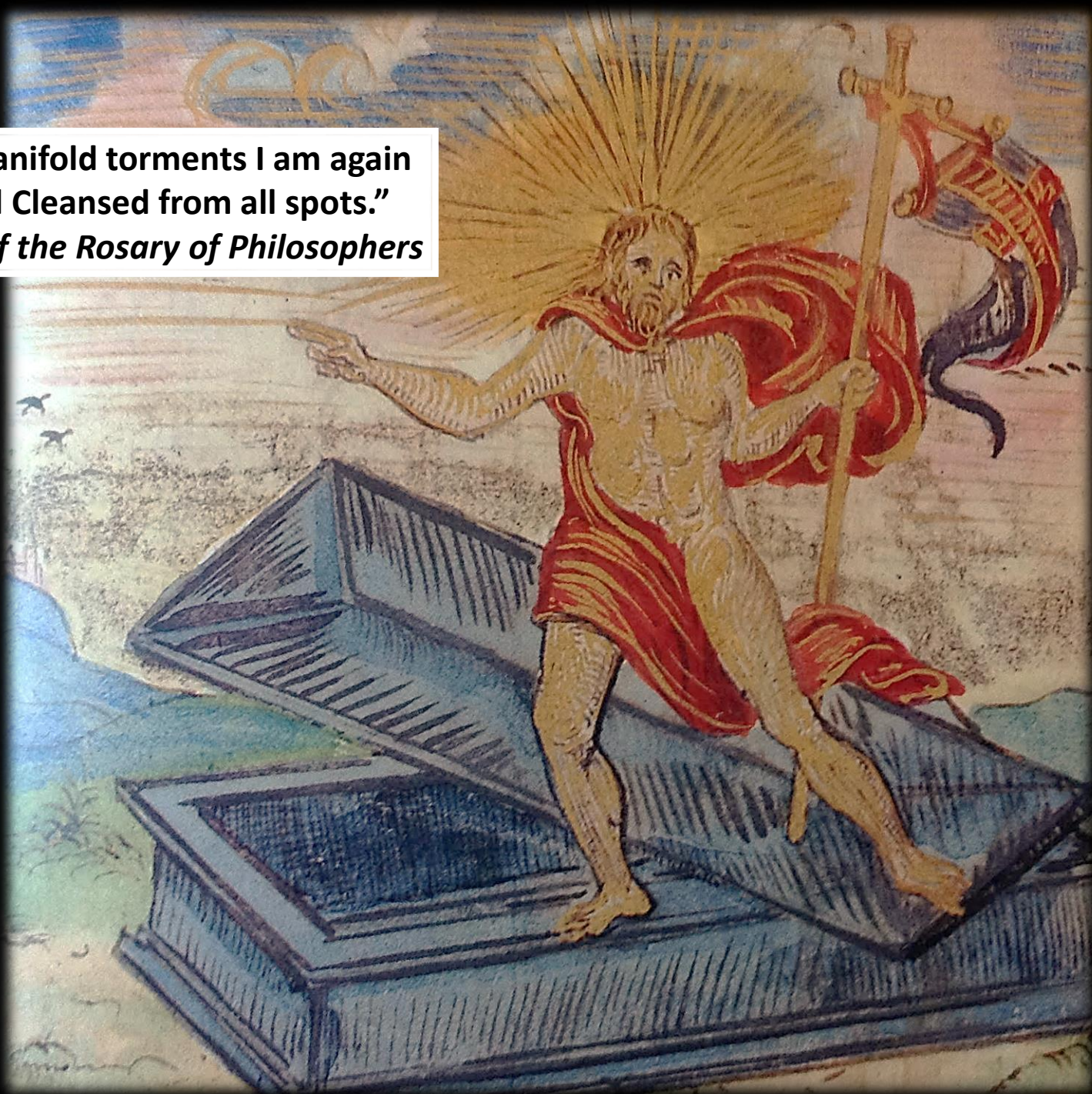


**Alchemy and Initiation:  
Death, Resurrection, and Synthetic Life  
PowerPoint Presentation Part 2 of 2  
By Frater JF, V Grade  
Presented November 19, 2017  
Golden State College SRICF  
Fairfield, CA**

“After my Pasion and manifold torments I am again risen, being purified and Cleansed from all spots.”

—*The Book of the Rosary of Philosophers*













# Palingenesis



- Spagyrics: putrefaction, distillation, and extraction of mineral elements from burned up plants (ash)
- Greek *palin*, meaning again, and *genesis*, meaning birth
- “Artificial rebirth of living things by artificial means” (227)
- Plant resurrection?
- “According to Quercetanus, an anonymous Polish doctor was able to burn plants and flowers to ash and then resuscitate them in a hermetically sealed flask” (228)

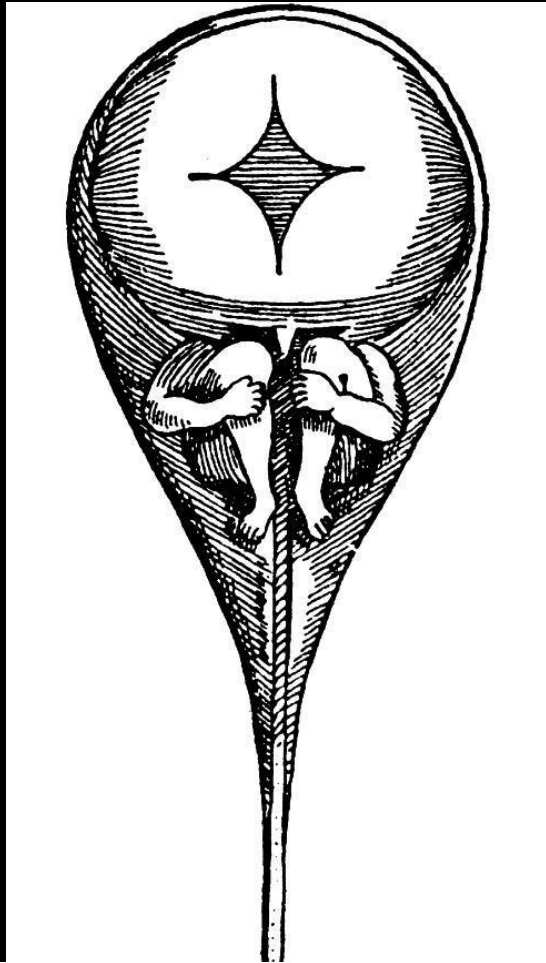
# Homunculus (Latin for *little man*)

## Creation of Artificial Life

- First mentions of creating an artificial man found in 3<sup>rd</sup> c. Greek text and medieval Arabic text (Salaman and Absal ca. 1037)
- *Anthroparion*—a little man or homunculus
- Paracelsus is credited with the first mention of forming a homunculus in *De homunculus* (c. 1529–1532), and *De natura rerum* (1537)
- A full grown homunculus, because it was created through art, was the embodiment of human art, could therefore know the secrets of “the arts,” and often grew into giants, magical beings, and great sorcerers like Merlin
- However, Paracelsus claimed that it could also be a sin; art versus nature, or restoring a fallen Creation

“We must now by no means forget the generation of homunculi. For there is something to it, although it has been kept in great secrecy and kept hidden up to now, and there was not a little doubt and question among the old philosophers whether it even be possible to nature and art that a man can be born outside the female body and [without] a natural mother... But how this should happen and proceed—its process is thus—that the sperm of a man be putrefied by itself in a cucurbit for forty days with the highest degree of putrefaction in a horse’s womb [feminine flask], or at least so long that it comes to life and moves itself, and stirs, which is easily observed. After this time, it will look somewhat like a man, but transparent, without a body. If, after this, it be fed wisely with the arcanum of human blood and be nourished for up to forty weeks, and be kept in the even heat of the horse’s womb a living human child grows therefrom, with all its members like another child, which is born of a woman, but much smaller.” —*De natura rerum*

# Mystery of the Spermatozoon



Early gene theory, little man in sperm, just needs to be grown, all other generations exist therein



**“The womb acts naturally when it preserves the semen and supplies it with a natural heat that stimulates its growth. But when it nourishes the semen with menstrual blood, it behaves artificially, like an agriculturalist does when he fertilizes a field. By this reasoning, pseudo-Thomas concludes that the mother contributes nothing to the essence of the child but only provides a sort of incubator and nourishment.”—Newman, p. 188**

# Horse's Womb [feminine flask]



# Spontaneous generation

- Living organisms produced from nonliving matter
- Apparent production of life in seemingly non-fertile environments
- Archaic theory that developed to explain the origins of life
- Parthenogenesis: reproduction from an ovum without fertilization; asexual reproduction; found in some invertebrates, bees, plants



**Aristotle believed scallops formed spontaneously in sand**

# How was a Homunculus Created?



- Usually sperm, menses, and sometimes even blood were added
- Mud, clay, or even feces
- Sperm was then “fed” to it over a period of time
- “Baked” on a sustained heat that was kept at a regulated temp
- After a period of time, life would emerge in human form, though in miniature

# Jewish Golem

Anthropomorphic creature  
magically created and given  
life from inanimate matter,  
such as clay or dirt



# Mandrake Roots

“The homunculus, which the necromancers falsely call *alreona* and the natural philosophers *mandragora* [mandrake magic], has become a topic of common error, on account of the chaos in which they have obscured its true use. Its origin is sperm, for through the great digestion that occurs in a venter equinus [feminine basilisk], the homunculus is generated, like [a man] in all things, body and blood, with principal and lesser members.”

—*De vita longa*

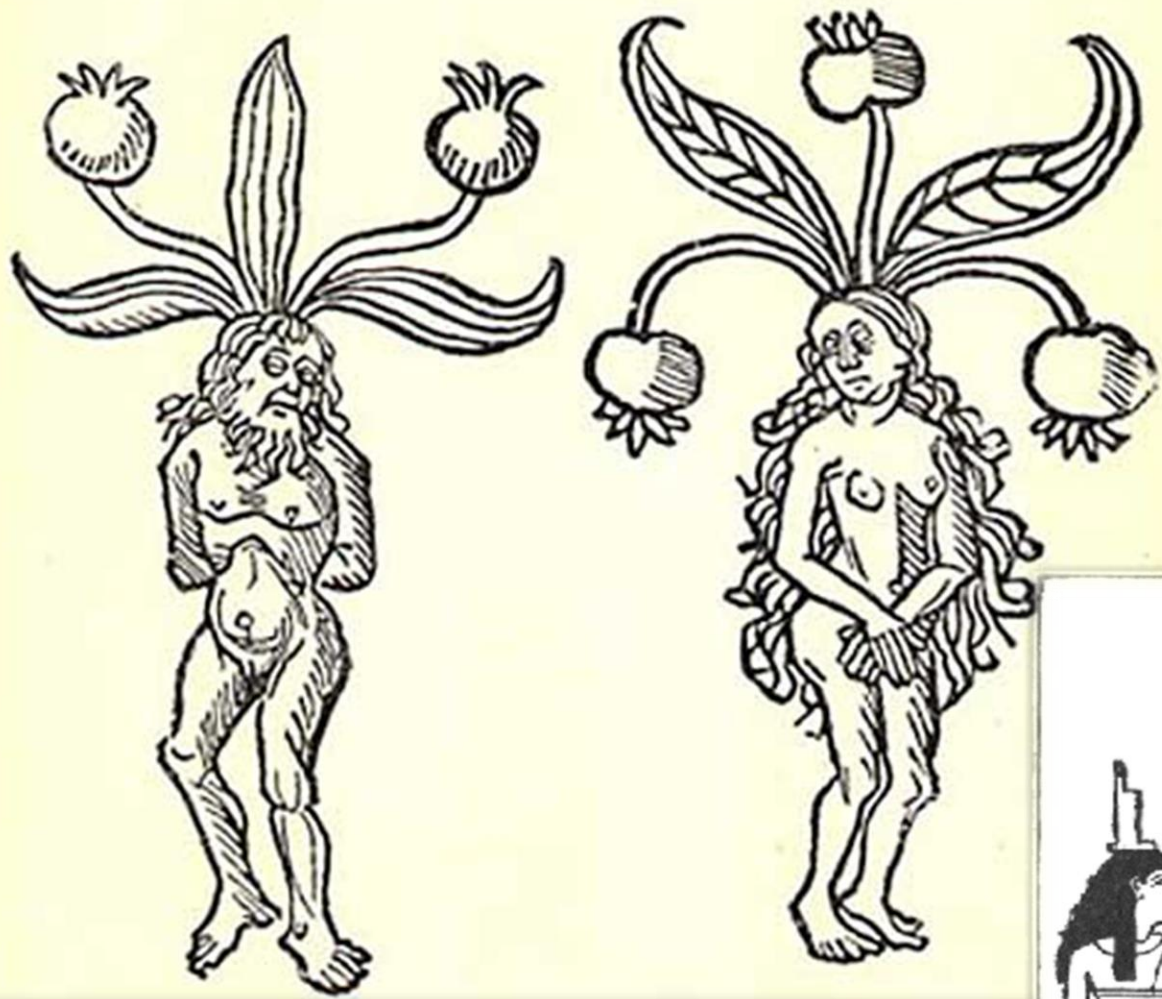


# Mandrake Magic

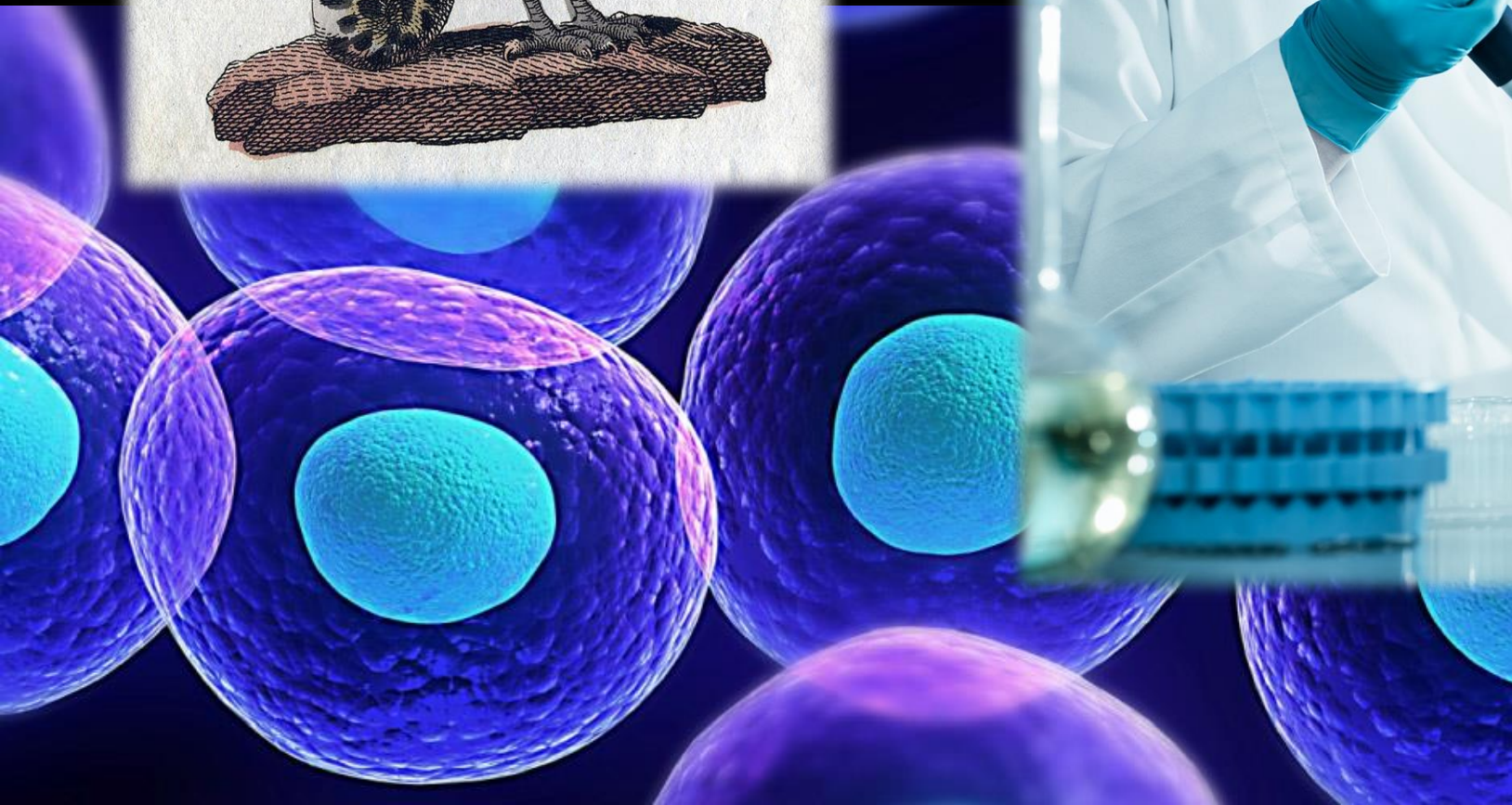
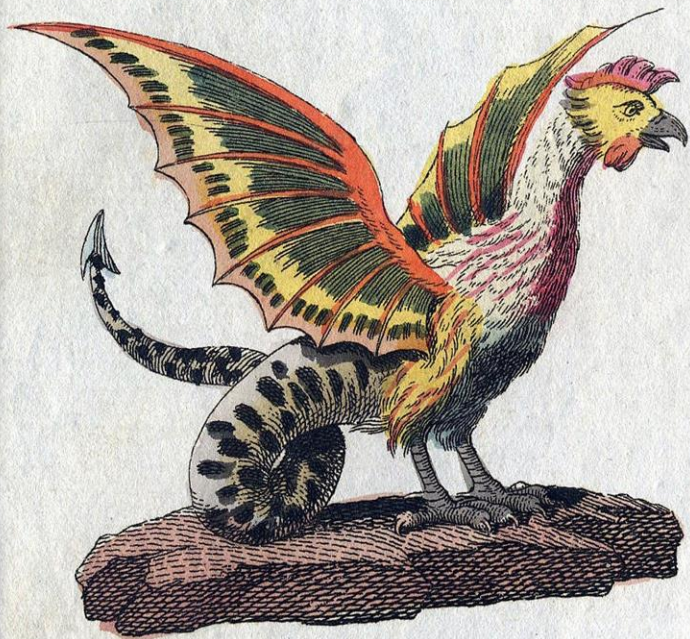


- Folk tradition of *Mandragora*
- Folk Tradition of burying semen in dung in the ground, feeding it more semen over time, with the idea of exposing it to natural prolonged heat and decay
- Legend of the Gallows' Man
- Paracelsus says mandrake is actually the homunculus





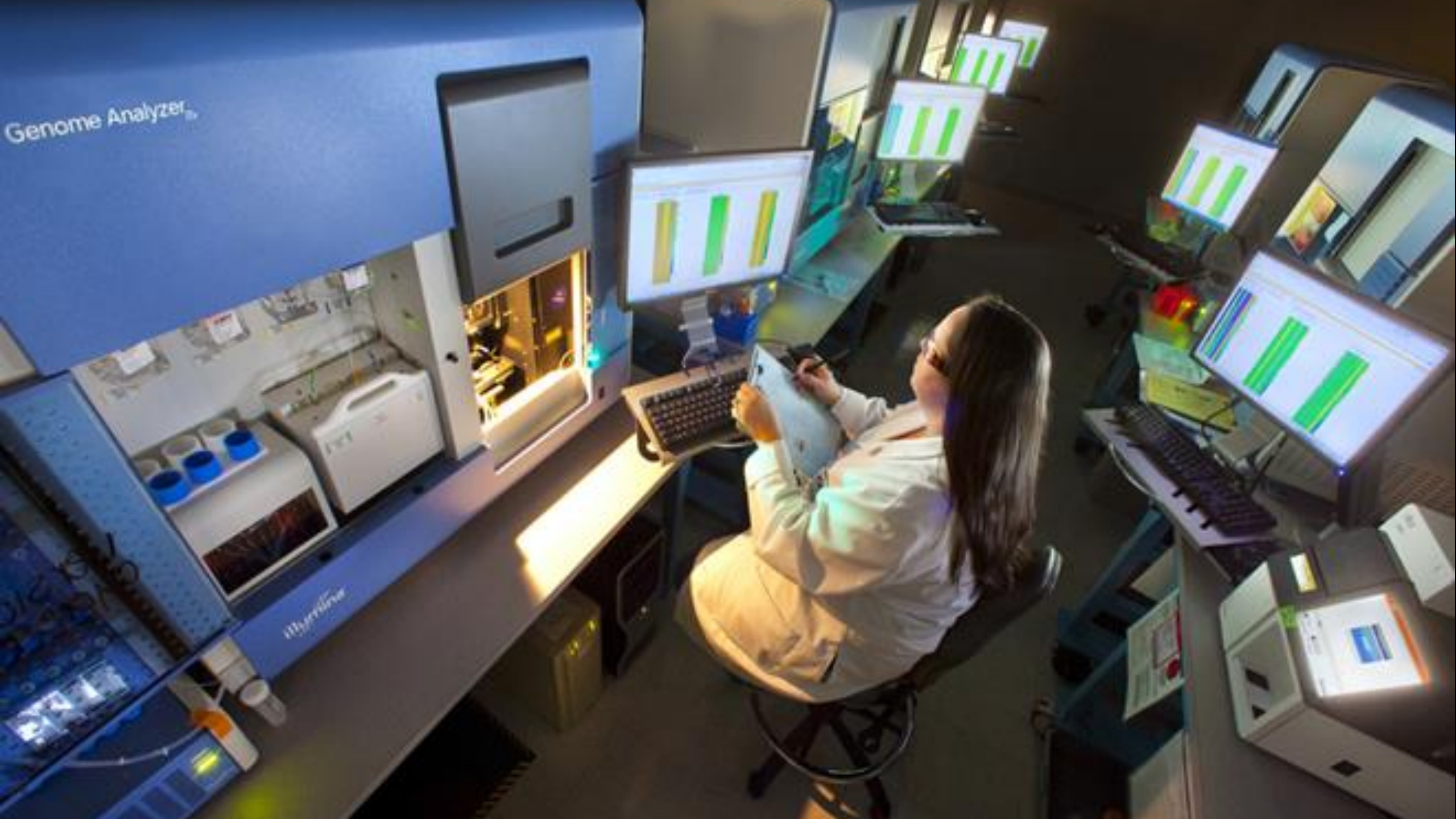
# Biotechnology



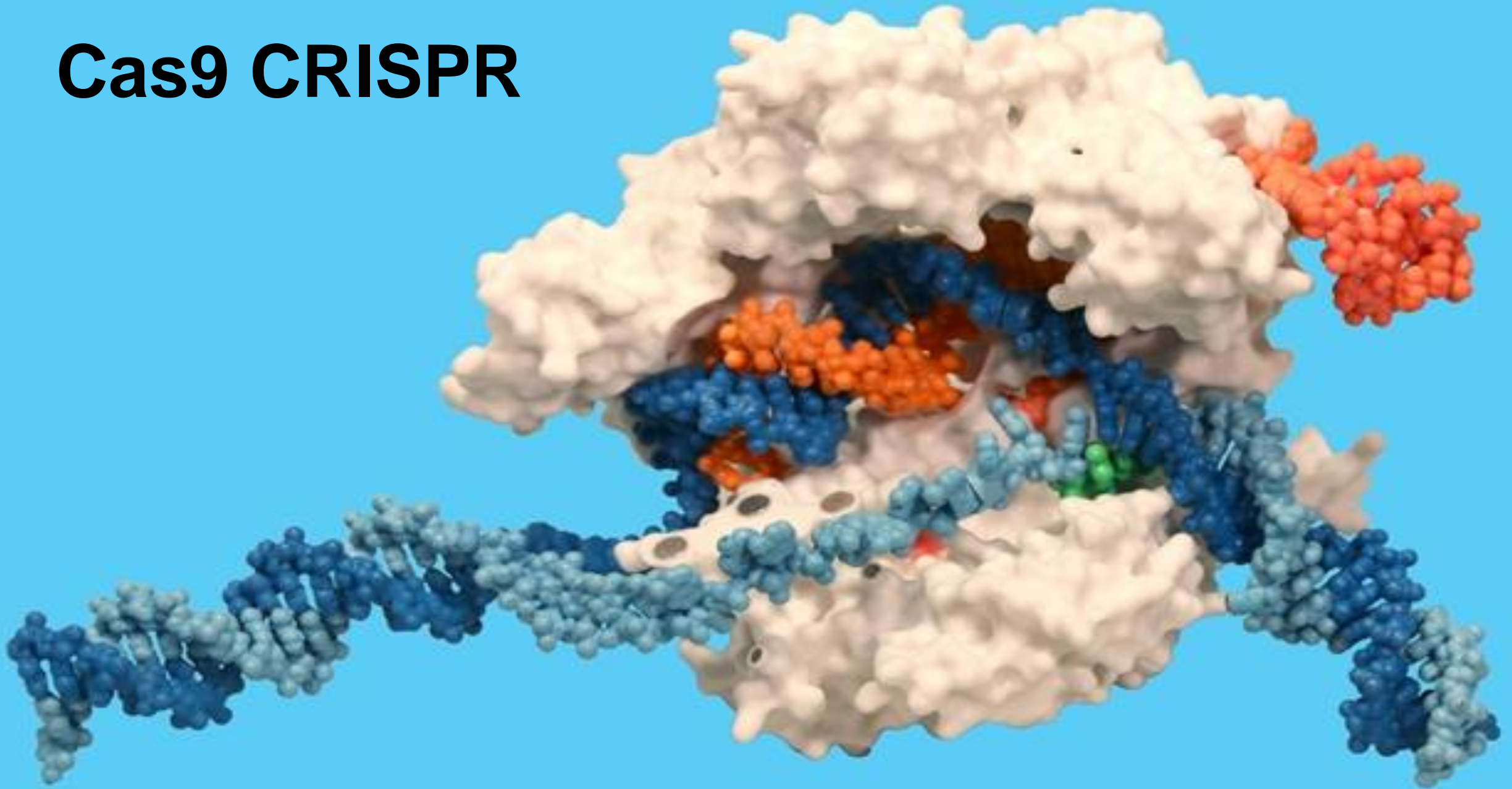
CRISPR  
(*Clustered  
Regularly  
Interspaced  
Short  
Palindromic  
Repeats*)



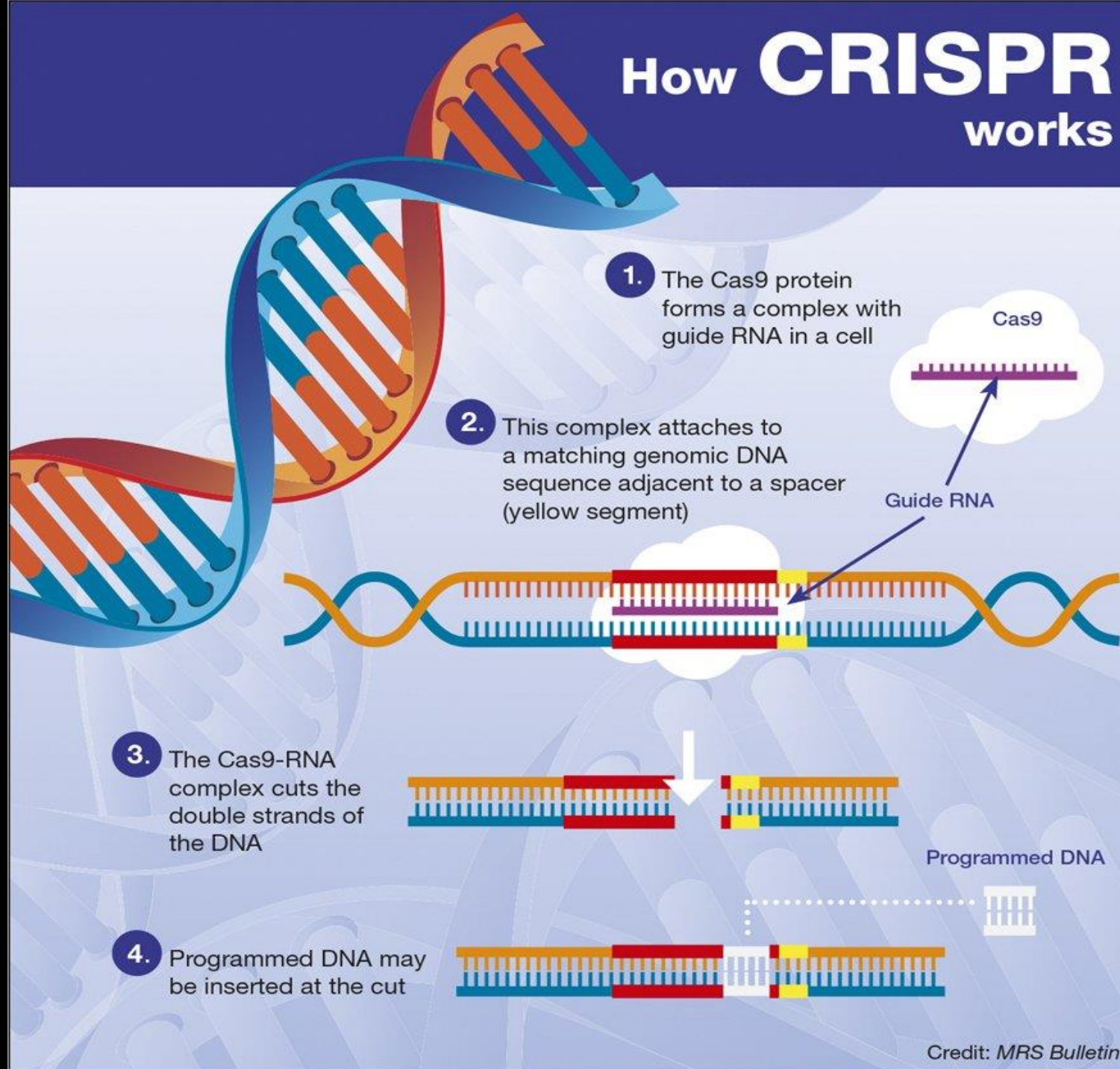
Genome Analyzer™



# Cas9 CRISPR



# How CRISPR works





BEGIN  
 ARRAY PATTERN INFO  
 Units            μm  
 Array Row:        12  
 Array Colu        4  
 Spot Rows        24  
 Spot Colun        24  
 Array Row        4500  
 Array Colu        4500  
 Spot Row !        186

BEGIN DATA										
Index	Array Row	Array Colu	Spot Row	Spot Colun	Name	ID	X	Y		
1	1	1	1	1	'ABCG8	TCHA0013	670			
2	1	1	1	1	'Acetyltran	TCHA0018	860			
3	1	1	1	1	'ABHD2	TCHA0013	1040			
4	1	1	1	1	'Acetyltran	TCHA0018	1230			
5	1	1	1	1	'ABHD4	TCHA0013	1400			
6	1	1	1	1	'Acetyltran	TCHA0018	1625			
7	1	1	1	1	'ABHD6	TCHA0013	1820			
8	1	1	1	1	'ACHE	TCHA0018	1970			
9	1	1	1	1	'ALOX15	TCHA0050	2140			
10	1	1	1	1	'AMP-bind	TCHA0055	2325			
11	1	1	1	1	'ALOXE3	TCHA0051	2515			

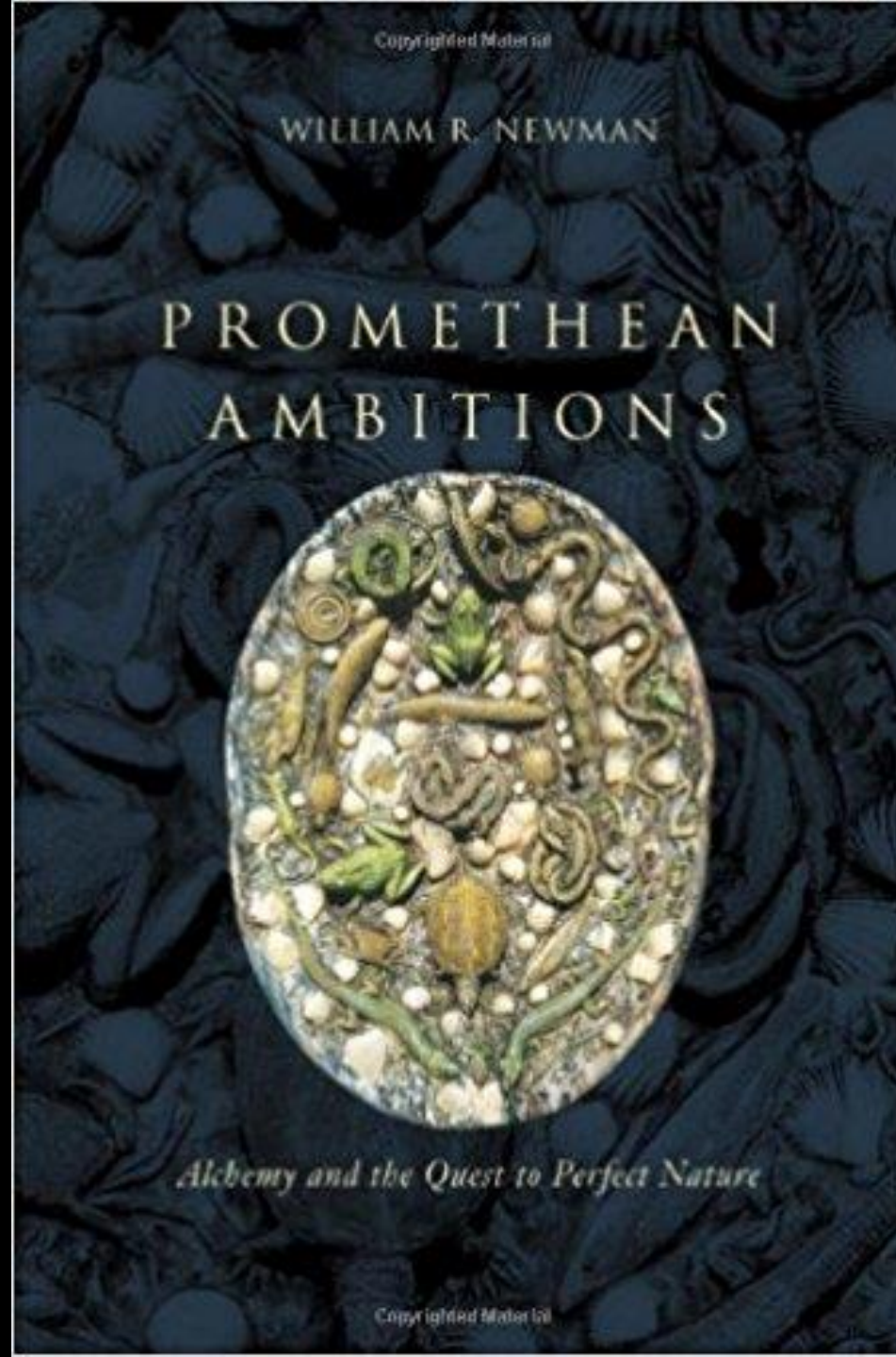
  

BEGIN IMAGE INFO										
ImageID	Channel	Image	Fluorophoi	Barcode	Units	X Units				
-1	CH1	M:\H25K A Cy3		167961	μm					

# Modern-Day Alchemists?

Thank you!!!

William R. Newman is Distinguished Professor and Ruth N. Halls Professor in the Department of History and Philosophy of Science at Indiana University.



William R. Newman.  
*Promethean Ambitions:  
Alchemy and the Quest to  
Perfect Nature.* University  
of Chicago Press, 2005