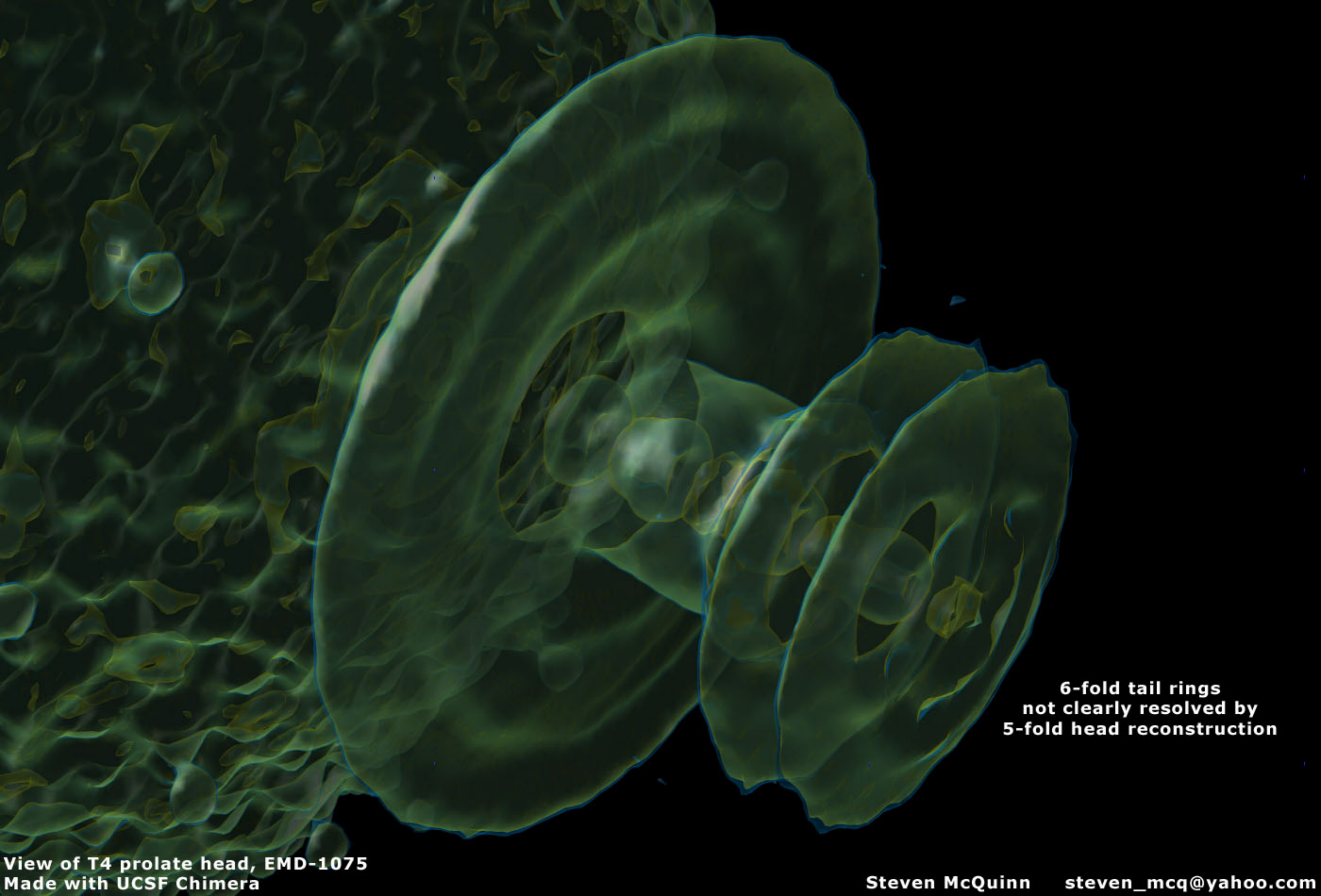


head capsid

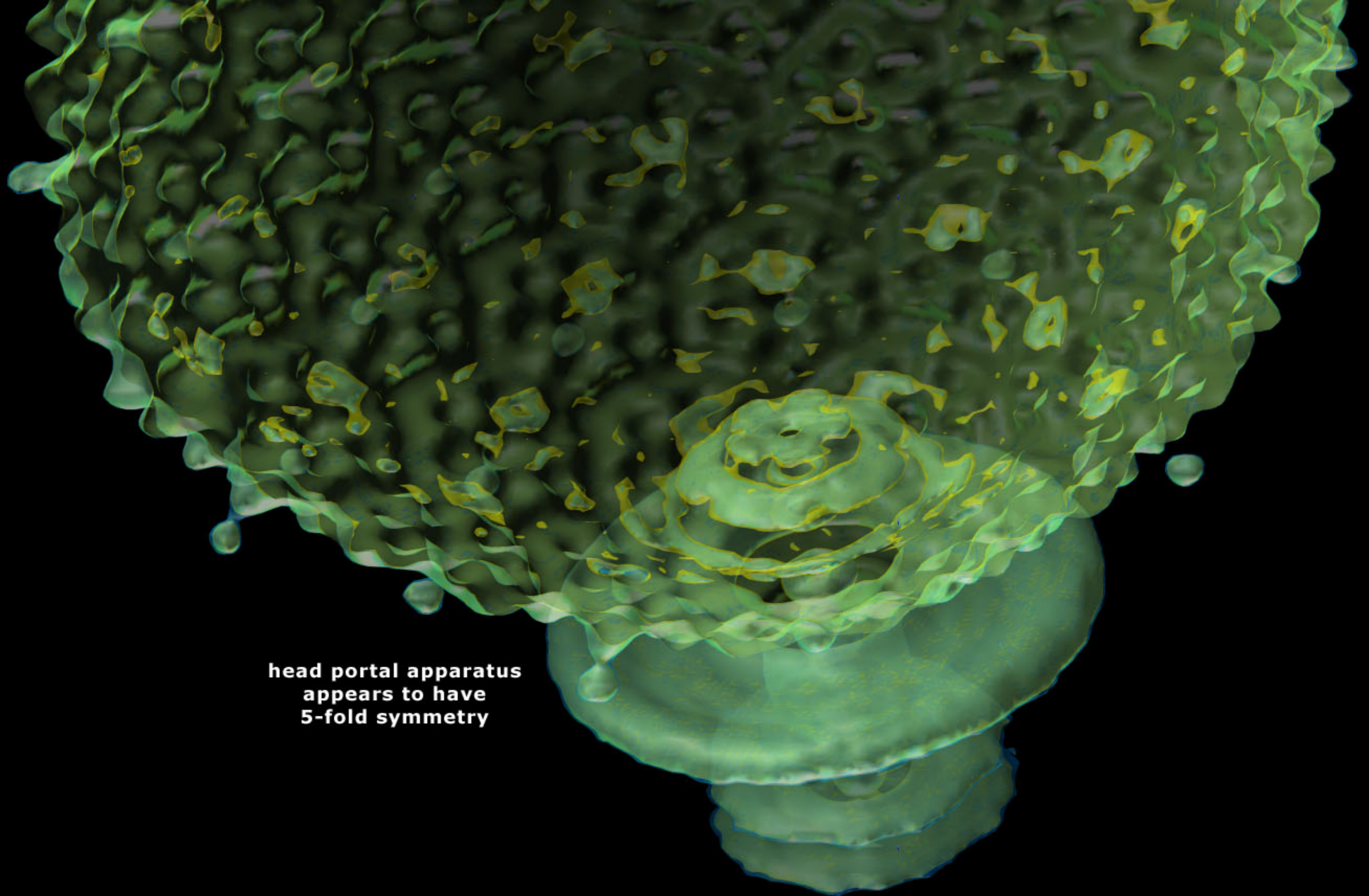
10  
nanometers

connector assembly

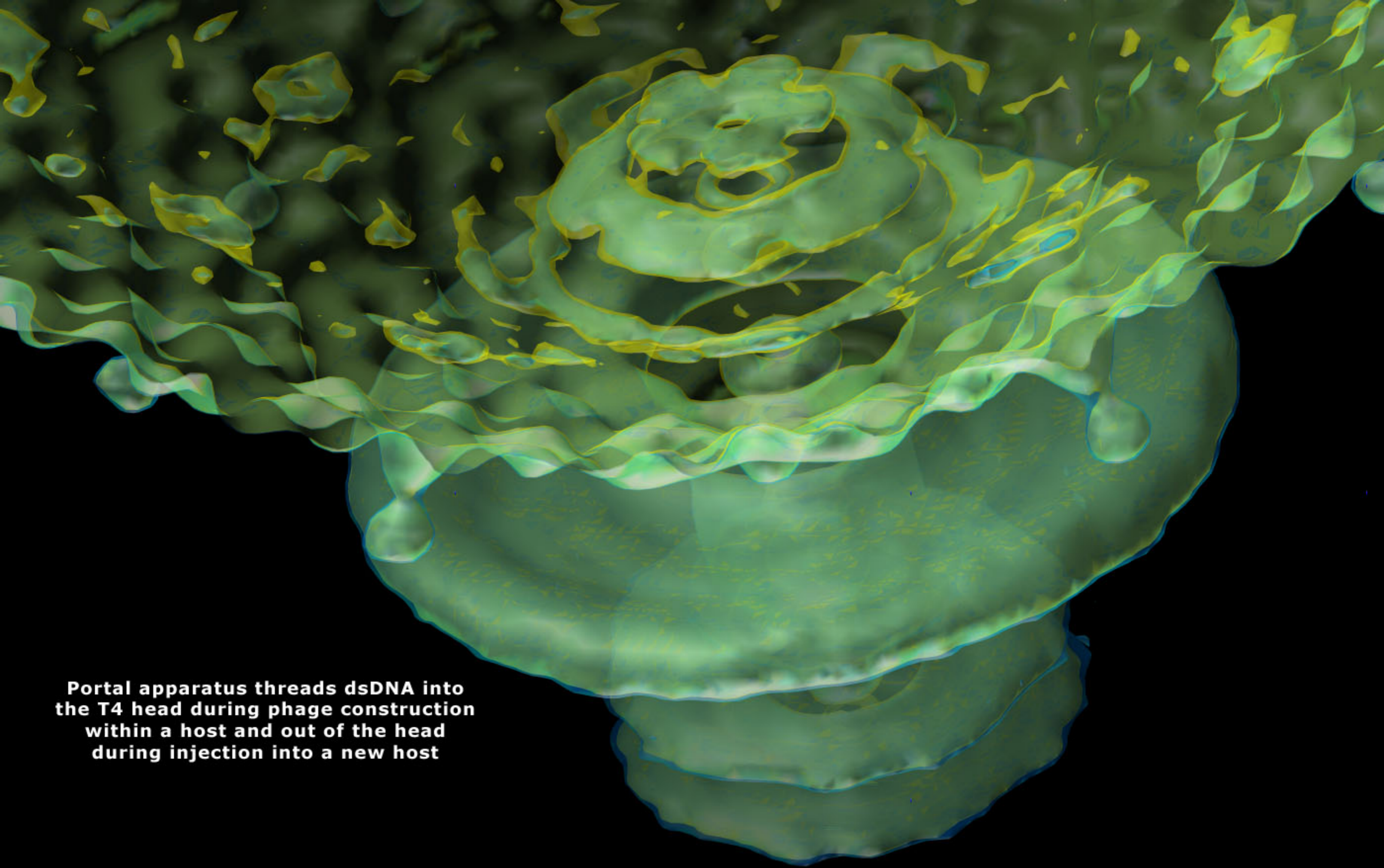
tail sheath rings



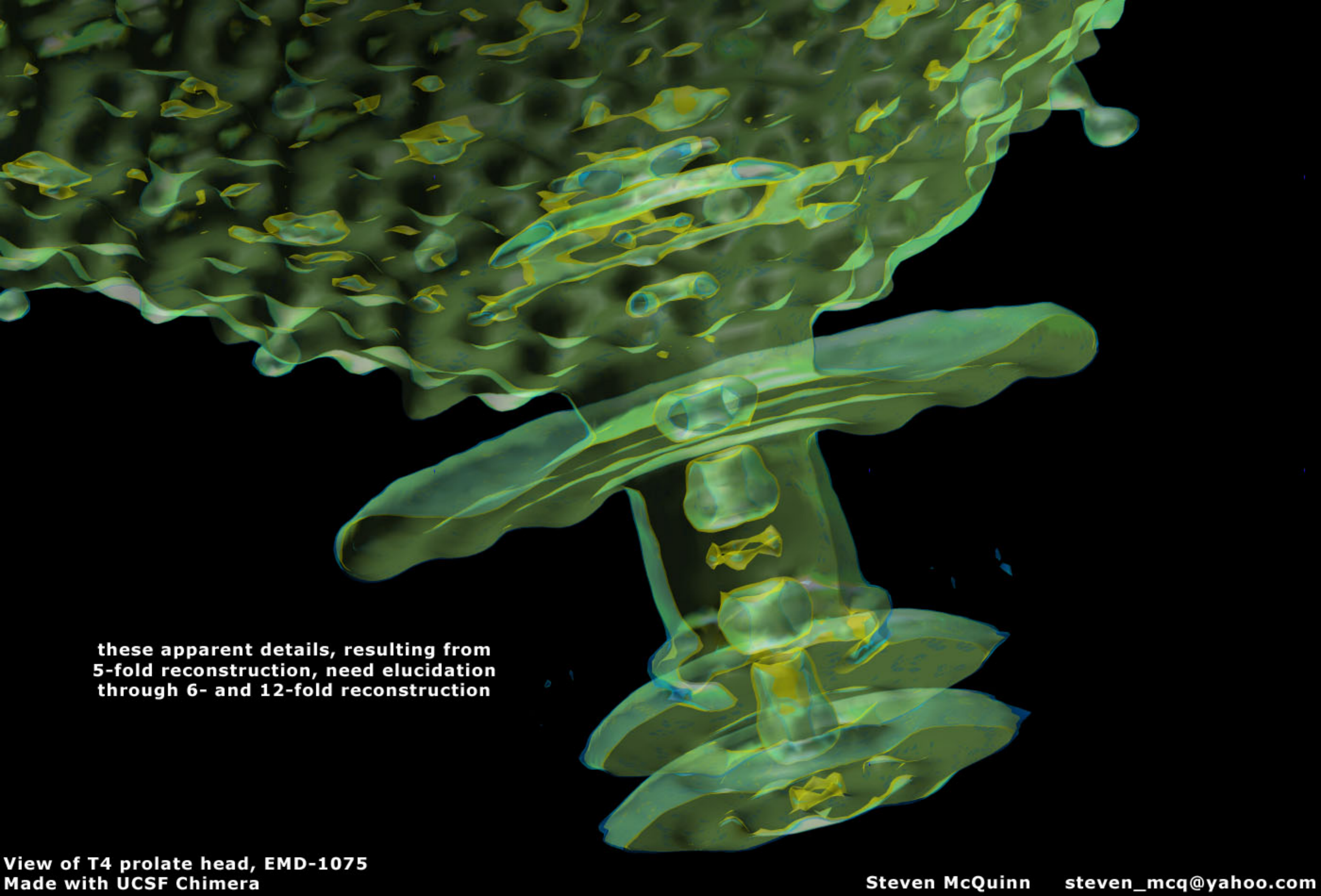
**6-fold tail rings  
not clearly resolved by  
5-fold head reconstruction**



head portal apparatus  
appears to have  
5-fold symmetry



**Portal apparatus threads dsDNA into  
the T4 head during phage construction  
within a host and out of the head  
during injection into a new host**

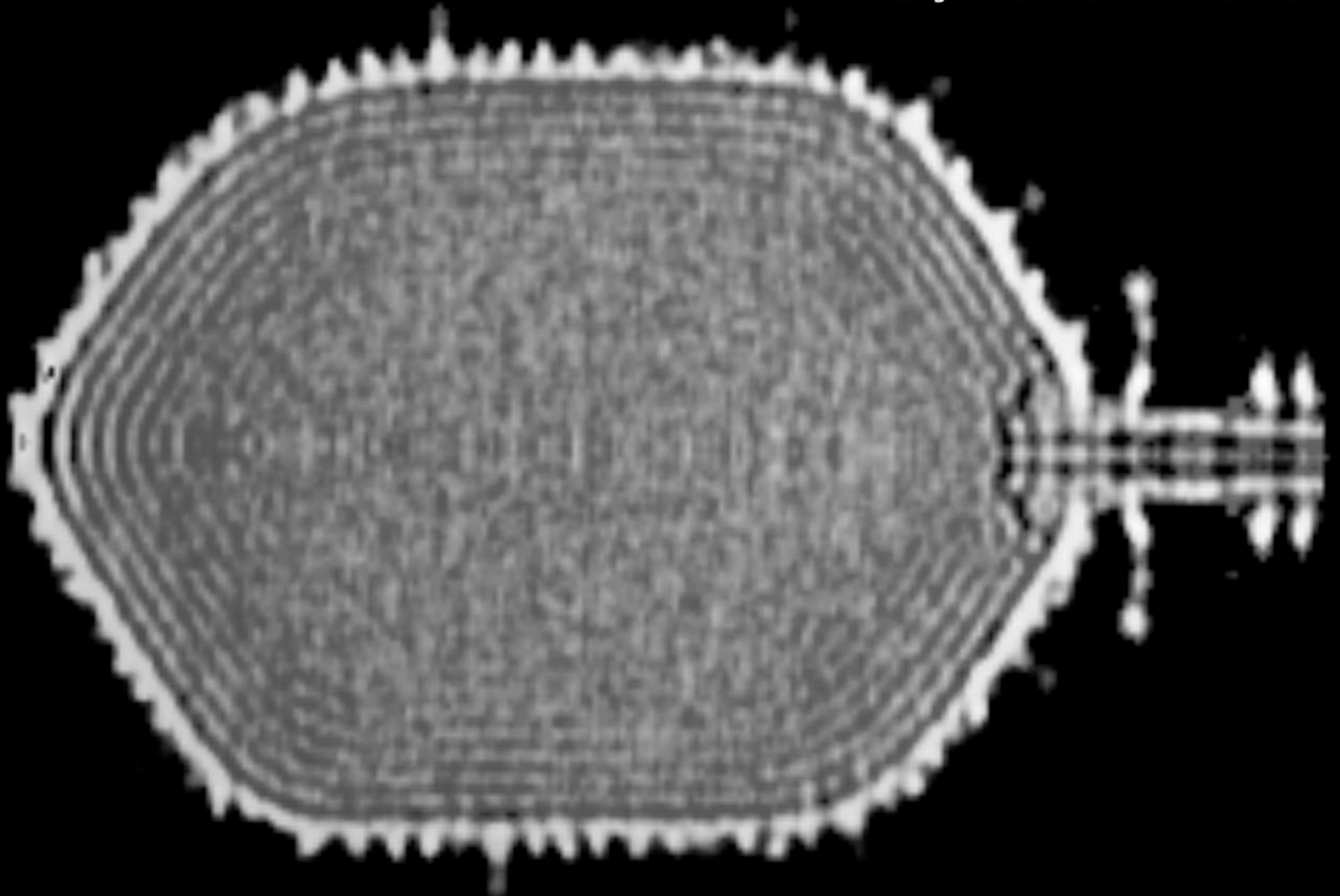


**these apparent details, resulting from  
5-fold reconstruction, need elucidation  
through 6- and 12-fold reconstruction**

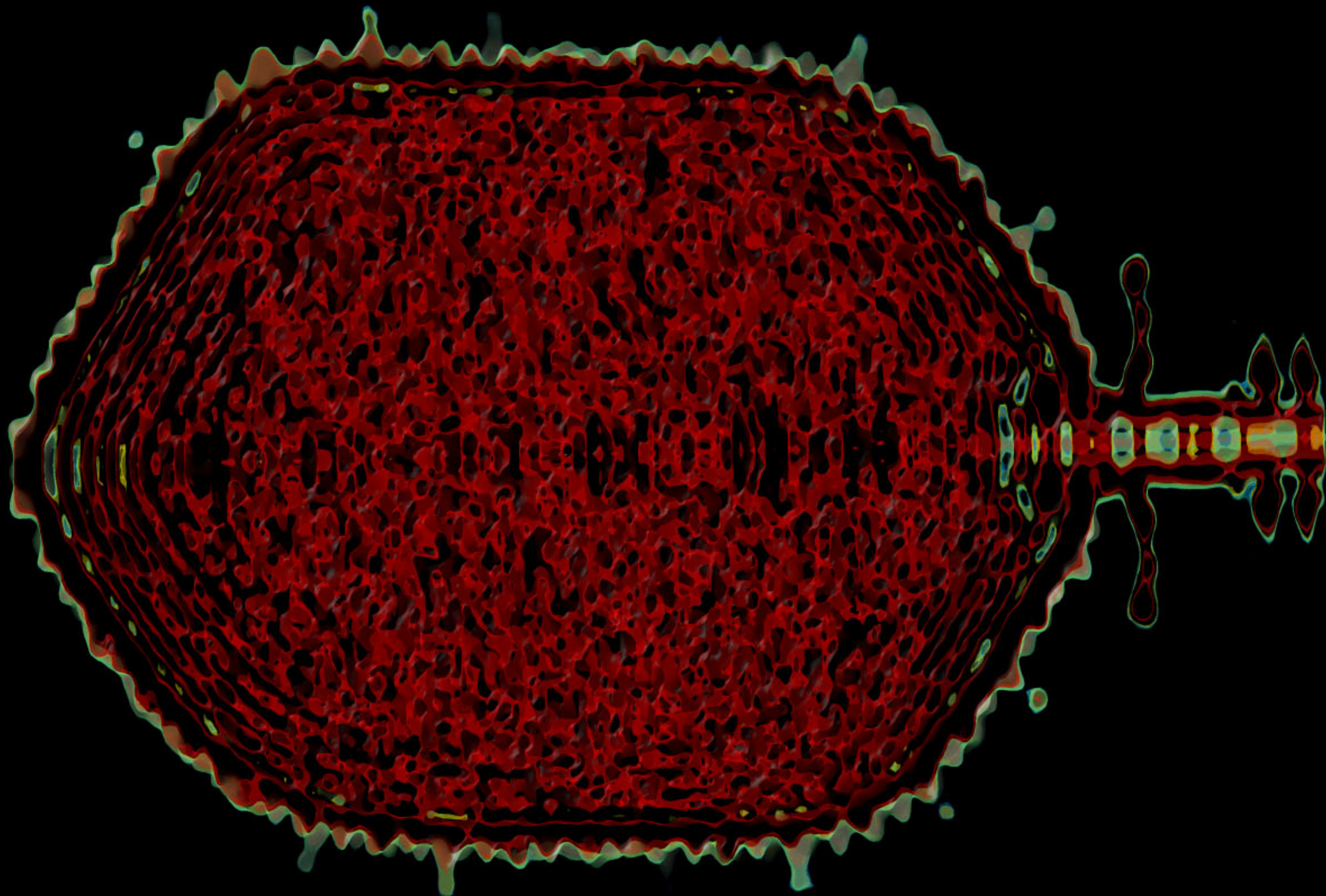
**an equatorial thin slice of volume density  
shows distinct DNA layers around the  
periphery but the packing pattern in  
the center region is not clear**



longitudinal thin slice of volume density



a longitudinal thin slice using isosurfaces reveals several apparent structures





**Citation:**

**Molecular architecture of the prolate head of bacteriophage T4  
PNAS 2004 101: 6003-6008  
<http://www.pnas.org/cgi/reprint/101/16/6003.pdf>**

**Software:**

**Images produced using the UCSF Chimera package (NIH P41 RR-01081).  
<http://www.cgl.ucsf.edu/chimera>**

**Huang, C.C., Couch, G.S., Pettersen, E.F., and Ferrin, T.E. "Chimera: An Extensible  
Molecular Modeling Application Constructed Using Standard Components."  
Pacific Symposium on Biocomputing 1:724 (1996).**

**Data:**

**Electron density map: EMD-1075  
22.5 Å resolution  
[http://www.ebi.ac.uk/msd-srv/emsearch/atlas/1075\\_summary.html](http://www.ebi.ac.uk/msd-srv/emsearch/atlas/1075_summary.html)**

**Visual Designer:**

**Steven McQuinn  
[steven\\_mcq@yahoo.com](mailto:steven_mcq@yahoo.com)**

**Hit Escape key to stop slide show.  
Close and reopen to restart slide show.**