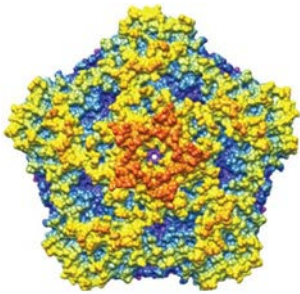


we seek a:

PhD student for structural studies of RNA virus replication using cryo-electron tomography

Lars-Anders Carlson lab, Umeå University, Sweden
www.carlsonlab.se

We study the drastic rearrangements of cellular membranes that positive-sense RNA viruses carry out within hours of entering a cell. Such viruses induce the formation of organelles called *replication complexes*, which serve to copy the viral RNA genome. Hidden inside infected cells and associated with cellular membranes, replication complexes are the most mysterious manifestation of this vast group of viruses that cause diseases ranging from common cold, to hepatitis C and mosquito-borne tropical fevers.



What does this virus do to the interior of an infected cell - at subnanometre resolution?

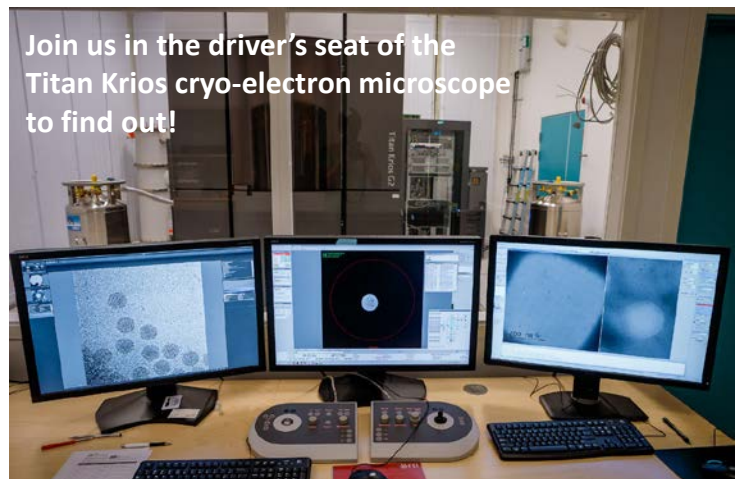


photo: Mattias Pettersson

We aim to recruit a PhD student to study the structure of viral replication complexes by *cryo-electron tomography* of virus-infected cells. A main focus of the research will be high-end cryo-EM using the new instrumentation suite at the Umeå Core Facility for Electron Microscopy. The student will establish the necessary cell biology and virology to determine structures of replication complexes inside infected cells. In addition to cryo-EM and cell biology, advanced image processing will be an important part of the research. Other methods employed may involve biochemistry, modelling/simulations, and high-end fluorescence microscopy.

The 2014 European capital of culture, Umeå is the largest city in northern Sweden yet small enough to be bicycle and pedestrian friendly. It is known both for its alternative culture scene(s) and its proximity to the Scandinavian wilderness.

The deadline for this position is **2017-10-15**. In case of questions, contact Lars directly at lars-anders.carlson@umu.se Apply through the online system at: <https://umu.mynetworkglobal.com/what:job/jobID:165260/where:4>

We look forward to hearing from you!