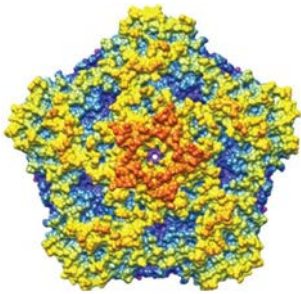


*we seek a:*

## PhD student for mechanistic and structural studies of RNA virus replication

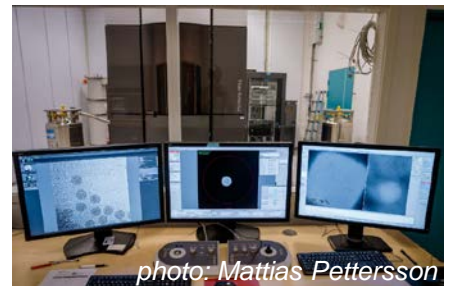
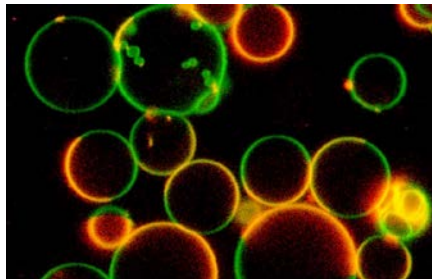
Lars-Anders Carlson lab, Umeå University, Sweden  
[www.carlsonlab.se](http://www.carlsonlab.se)

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.



Join us to study what this virus does to the interior of an infected cell!

**Recreate virus replication outside of cells and understand its molecular mechanisms.**



**Image replication complexes in 3D at our cryo-electron microscope.**

We aim to recruit a PhD student to study the structure and function of viral replication complexes. The student will isolate active replication complexes from infected cells and study their function by biochemical and biophysical methods. Cryo-electron microscopy and cryo-electron tomography will be used to determine their three-dimensional structure. The studies will be complemented by measurements of virus replication in living cells.

As a PhD student at Umeå University you will be a member of our vibrant infection biology community. You will have ample access to all infrastructures needed for your research such as high-end fluorescence microscopes, biochemistry and biophysics instrumentation, our world-class cryo-EM facility and cell culture facilities at biosafety level 2 and 3. 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 scenes and its proximity to the Scandinavian wilderness.

The deadline for this position is **2018-04-30**. In case of questions, contact Lars directly at [lars-anders.carlson@umu.se](mailto:lars-anders.carlson@umu.se) Apply through the application portal at: [https://www.umu.se/en/work-with-us/open-positions/phd-studentship-in-medical-biochemistry\\_200099/](https://www.umu.se/en/work-with-us/open-positions/phd-studentship-in-medical-biochemistry_200099/)