

# Plate Runner Platform

*High content screening (HCS) / Analysis (HCA)*

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## **1. Short description of the infrastructure.**

Plate Runner Platform, High content screening (HCS) / Analysis (HCA)

The Plate Runner is available for everyone to use.

HCS / HCA enables automated acquisition, visualization and quantification of a large number of images.

The Plate Runner HD allows:

Rapid snapshot acquisition of fluorescence images of cells and small organisms

High resolution full well / full plate imager

High through-put format for 96/384 plates

May serve as a sensitive plate reader detecting whole well fluorescence

Examples of fluorescence assays that may be measured:

Reporter gene assays

Cell viability, cytotoxicity and apoptosis assays

Neurite outgrowth

Screening of fast kinetics

This device is very simple to learn and to use. It produces only full standard tiff images, compatible with any vendor image analysis program.

## **2. Is this infrastructure receiving support also from other Strategic Research Areas (SRAs) or organizations at Lund University (e.g. Medical faculty, LBIC). If yes, please specify the type of support and its amount.**

No

3. **Number and names of MultiPark senior researchers using the infrastructure in the period 2018-2020<sup>1</sup>.**

Laurent Roybon  
Cecilia Lundberg  
Andreas Heuer

4. **Number and names of senior researchers outside of Multipark and/or non-academic partners using the infrastructure 2018-2020.**

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5. **Does the infrastructure have a steering document accessible to the users? If yes, when was it last updated?<sup>2</sup>**

June 2020.

6. **Is the infrastructure charging user fees? If yes, state the amount and what is covered by the user fees.**

**MultiPark User fee:**

50 SEK/hour

**External User fee:**

150 SEK/hour

**Introduction fee:**

500 SEK /hour

Introduction to Plate Runner instrument takes 1 hour.

6. **List publications generated with the help of this infrastructure during the past 3 years (2018-2020). Do not include manuscripts in preparation and please give the full reference (i.e., complete author list, complete title, journal name with year, volume, pages)<sup>3</sup>.**

1. Davidsson M, et al., RNA. 2018 May;24(5):673-687
2. Davidsson M, et al., bioRxiv 335372; doi: <https://doi.org/10.1101/335372>
3. Ekaterina Savchenko, et al. Scientific Reports volume 9, Article number: 9610 (2019)  
**FGF family members differentially regulate maturation and proliferation of stem cell-derived astrocytes**  
<https://www.nature.com/articles/s41598-019-46110-1>
4. Davidsson M, Wang G, Aldrin-Kirk P, Cardoso T, Nolbrant S, Hartnor M, Mudannayake J, Parmar M, Björklund T.  
**A systematic capsid evolution approach performed in vivo for the design of AAV**

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<sup>1</sup> If the infrastructure was first established in 2020, please include this information.

<sup>2</sup> Note that the Multipark leadership may ask to see this document with a very short notice.

<sup>3</sup> If the infrastructure was first established in 2020, please include this information here too.

**vectors with tailored properties and tropism**

Proc Natl Acad Sci U S A. 2019 Dec 9. pii: 201910061. doi: 10.1073/pnas.1910061116.

PMID: 31818949

5. Davidsson M, Negrini M, Hauser S, Svanbergsson A, Lockowandt M, Tomasello G, Manfredsson FP, Heuer A: A comparison of AAV-vector production methods for gene therapy and preclinical assessment. *Scientific Reports*, (2020) 10:21532.  
<https://www.nature.com/articles/s41598-020-78521-w>