



# Schedule

This workshop will take place from **Monday 12th Dec - Friday 16th Dec 2022**. The timing of this event will be **Central European Time (CET)**.

## Day 1: Monday 12th December 2022 [Times in CET and PST]



11:00-12:00 [03:00-03:00] Arrival / registration

12:00-13:00 [03:00-04:00] Lunch

13:00-15:00 [04:00-06:00]   Talks on de.NBI biohackathon and [all projects](#)

15:00-15:30 [06:00-06:30] Break

15:30-18:50 [06:30-09:50] Introductory presentations

- 15:30 [06:30] General introduction (topic, motivation, paper, cloud, "streams"), *Naveed Ishaque, BIH*
- 15:50 [06:50] General organisation (Slack, GitHub, tasks, cloud), *Naveed Ishaque, BIH*
- 16:10 [07:10]   Practical: SpaceHack cloud, *Naveed Ishaque, BIH*
- 17:00 [08:00] Spatial cell type mapping in SpaceTx, *Renee (Yun) Zhang, J. Craig Venter Institute*
- 17:20 [08:20] TXsim - a workflow to compare single cell and segmented spatial, *Louis B Kuemmele, Helmholtz Munich*
- 17:50 [08:50] Data + challenges: human heart and kidney, *Christoph Kuppe, RWTH Aachen*
- 18:10 [09:10] Data + challenges: human brain, *Jennie Close, Allen Inst*
- 18:30 [09:30] Data + challenges: mouse brain, *Michael Kunst, Allen Inst*

18:50-20:00 [09:50-11:00] Christmas Market Visit (... wrap up warm - it should be -6C with snow!)

20:00-24:00 [11:00-15:00] Evening at free disposal 22:00-23:00 [13:00-14:00] Optional recap for US participants, *Naveed and Louis*

## Day 2: Tuesday 13th December 2022

09:00-09:30 [00:00-00:30] Demo: how to hack, *Louis B Kuemmele, Helmholtz Munich*

09:30-12:00 [00:30-03:00] Hacking

09:30-10:45 [00:30-02:00] *Optional* demo series: light weight introductions into the data, formats, tools, ...

- 09:30 [00:30] Github, *Naveed Ishaque, BIH*
- 09:45 [00:45] Jupyter, *Paulo Czarnewski, SciLifeLab*
- 10:00 [01:00] Scanpy, *Paulo Czarnewski, SciLifeLab*
- 10:15 [01:15] Single cell data, *Paulo Czarnewski, SciLifeLab*
- 10:30 [01:30] Spatial transcriptomics data, *Paulo Czarnewski, SciLifeLab*
- 10:45 [01:45] Segmentation data, *Paulo Czarnewski, SciLifeLab*
- 11:00 [02:00] Using R on Jupyter and switching between *seurat* and *scnappy* objects, *George Gavrilidis, INAB/CERTH*

12:00-13:00 [03:00-04:00] Lunch

13:00-13:15 [04:00-04:15] Group photo

13:15-15:30 [04:15-06:30] Hacking

15:30-16:00 [06:30-07:00] Break

16:00-17:00 [07:00-08:00] Hacking

17:00-18:30 [08:00-09:30] In the footsteps of Martin Luther – guided city tour of the historical old town of Wittenberg (UNESCO World Heritage Sites) in English

18:30-24:00 [09:30-15:00] Evening at free disposal

20:00-21:00 [11:00-12:00] **Plenary (EU/US)**

## Day 3: Wednesday 14th December 2022

09:00-12:00 [00:00-03:00] Hacking

12:00-13:00 [03:00-04:00] Lunch

13:00-15:00 [04:00-06:00] **Mid-way reporting from projects - stream representative**

15:00-15:30 [06:00-06:30] Break

15:30-17:15 [06:30-08:15] Hacking

17:15-18:00 [08:15-09:00] **Plenary (EU/US)**

18:00-24:00 [09:00-15:00] Evening at free disposal

## Day 4: Thursday 15th December 2022

09:00-12:00 [00:00-03:00] Hacking

12:00-13:00 [03:00-04:00] Lunch

13:00-15:30 [04:00-06:30] Hacking

15:30-16:00 [06:30-07:00] Break

16:00-17:15 [07:00-08:15] Hacking

17:15-18:00 [08:15-09:00] **Plenary (EU/US)**

18:00-20:00 [09:00-11:00] Evening at free disposal

20:00-00:00 [11:00-15:00] After Hack Party

## Day 5: Friday 16th December 2022

09:00-10:00 [00:00-01:00] Hacking/Presentation preparation

10:00-12:00 [01:00-03:00] **Final reporting from projects**

12:00-13:00 [03:00-04:00] Lunch

13:00 [04:00] Departure

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## de.NBI Spatial Hackathon

Naveed Ishaque

[naveed.ishaque@bih-charite.de](mailto:naveed.ishaque@bih-charite.de)

de.NBI/ELIXIR-Germany SpaceHack - help  
define guidelines for spatial  
transcriptomics data analysis!