Skyra to Prisma Upgrade

Skyra Prisma Town Hall Meeting - 3/11/2022

The BIC hosted its inaugural Skyra Prisma Town Hall meeting on the 11th March 2022 to outline the prospective upgrade of the 3T scanner in NHB. Discussion focused on the preferred specifications of the new Prisma system, the infrastructure modifications to the Norman Hackerman Building and the internal renovations to the BIC suite.

The Town Hall presentation from can be found here: Skyra Prisma Town Hall - 11Mar2022.pdf

Skyra Prisma Upgrade - FAQ

Current phase of upgrade process: Selection of Construction Manager
Provisional start of renovations: October 2022
Projected install date: 2 Jan 2023
Anticipated operational Date: 1 Mar 2023

1) Why is the Skyra being upgraded?

The Skyra was purchased for the BIC in 2012 and is at the end of its lifespan as a state-of-the-art MRI system. A new generation of hardware, electronics and software is available which will better support innovative MRI research.

2) What system is the Skyra being replaced with and what are its features?

The Skyra will be replaced with a Siemens Prisma, their highest-specification 3T system which is ideally suited for neuroimaging and other MRI research. It features an improved cryostat (magnet), the best-performing gradient set on the market, enhanced shimming capabilities and XA line hardware / software enabling rapid MRI with improved signal/noise and greater spatial and/or temporal resolution than either Skyra or Vida systems. All RF coils currently available on the Skyra will be replicated – including the 32ch and 64ch Head/Neck coils – and RF transmit / receive architecture for X-nucleus applications (but not RF coils) will also be incorporated. A full range of software licenses and sequence libraries will be hosted including Simultaneous Multi-Slice (SMS, aka Multi-Band), Compressed SENSE, perfusion and ASL, MR Spectroscopy and more. Full lists of RF coils and sequences are available at the appropriate links.

3) How will the system be different to the Skyra?

Both the Skyra and Prisma are 3T scanners, but the Prisma is a (slightly) physically bigger system. As a consequence the system may be in a slightly different location in the Scanner Room and the extent of the stray field (5 Gauss line) may increase marginally. The Prisma has a more powerful gradient set than the Skyra so certain scans may be louder. The new system will feature Siemens XA30 operating system so the console will have a completely new look and feel (identical to that of the 3T Vida in HDB).

4) What will the upgrade process / timeline be?

Summer 2022: Preliminary BIC suite renovations
Fall 2022: Construction of a new access shaft into the BIC suite for scanner exit / entry
Late Nov 2022: Decommissioning of Skyra
Dec 2022: Renovations of 3T scanner / equipment / control rooms to accommodate Prisma
Jan 2023: Delivery / install of Siemens 3T Prisma system
System acceptance tests
Feb 2023: Installation / testing of User protocols
User training on XA30 hardware / software
Final BIC suite refurbishment and close-out
March 2023: BIC resumes full operation

3T Prisma upgrade for NHB - 1/13/2022

Dear BIC Community,

Happy New Year! With the support of the Vice Provost for Faculty Development, Ali Preston; the Vice President for Research, Dan Jaffe; and the Executive Vice President and Provost, Sharon Wood, the University Budget Council has committed funds to upgrade the 3T Siemens Skyra MRI in NHB to a state-of-the-art 3T Siemens Prisma MRI.

This is indeed an exciting time for imaging research on campus! The university’s generous investment in biomedical imaging will provide long-term support for the research endeavors of the BIC community; however, replacing the Skyra presents a few short-term obstacles. The replacement and transition to the Prisma will be a large, complex process and we wanted to start the communication and planning process with you now in an open and candid manner. UT Project Management and Construction Services (PMCS) conducted a feasibility study on the BIC facility and recommends the construction of an access shaft from ground level into the BIC space in the NHB basement to remove the Skyra and install the Prisma. After construction of the shaft, removal of the Skyra, and the installation of the Prisma, the facility will require final renovations and system acceptance tests before researchers can access the new instrument. This one-time construction is being designed to enable future upgrades to equipment in the BIC suite to occur more seamlessly.

A high priority for PMCS and the CNS facilities team is for this project to cause minimal disruption to research activities within NHB. Construction and renovation work will be planned accordingly. However, you can anticipate a period of 8-12 weeks during which the MRI system will be offline as we physically remove the Skyra and replace the scanner. A timeline for the access shaft construction, MRI replacement, and facility renovations is yet to be established. Later this month we will seek input from BIC users and other stakeholders within NHB on project scheduling, timelines, and communication strategies.

To help in your experiment planning and continuity, regular updates will be shared with the BIC and NHB communities via email. We will also have a dedicated webpage on our wiki <page link here> where you can access the most up to date information on the project. After this construction and replacement process is complete, we look forward to welcoming you to our upgraded BIC facility featuring a new 3T Siemens’ Prisma!

If you have any questions, please get in touch.

Best wishes,

Doug
A more accurate timeline will be posted when the design phase of the project is complete and updated regularly throughout construction.

5) Will I be able to continue my studies during the NHB renovations?

YES – the upgrade process is being phased to ensure that most research in NHB can continue with minimal impact. Key Core Facilities in the NHB basement, including BIC, will remain operational. There may be occasional disruptions and schedule adjustments in order to perform critical construction, but the Skyra should remain in use until it is decommissioned. Planned disruptions will be communicated to Users in advance with as much notice as possible.

6) Will my scanner fees change?

BIC will be undergoing its triennial Rate Review in the Summer / Fall of 2022, with new Resource Usage Fees set to come into effect for the 2022/23 Financial Year. These rates will be established based on current Center costs vs income, supported by a UT subsidy, and will be ratified and approved by the UT Office of Accounting. We do not expect the upgrade of the Skyra to a Prisma system to have any specific impact on scanner fees.