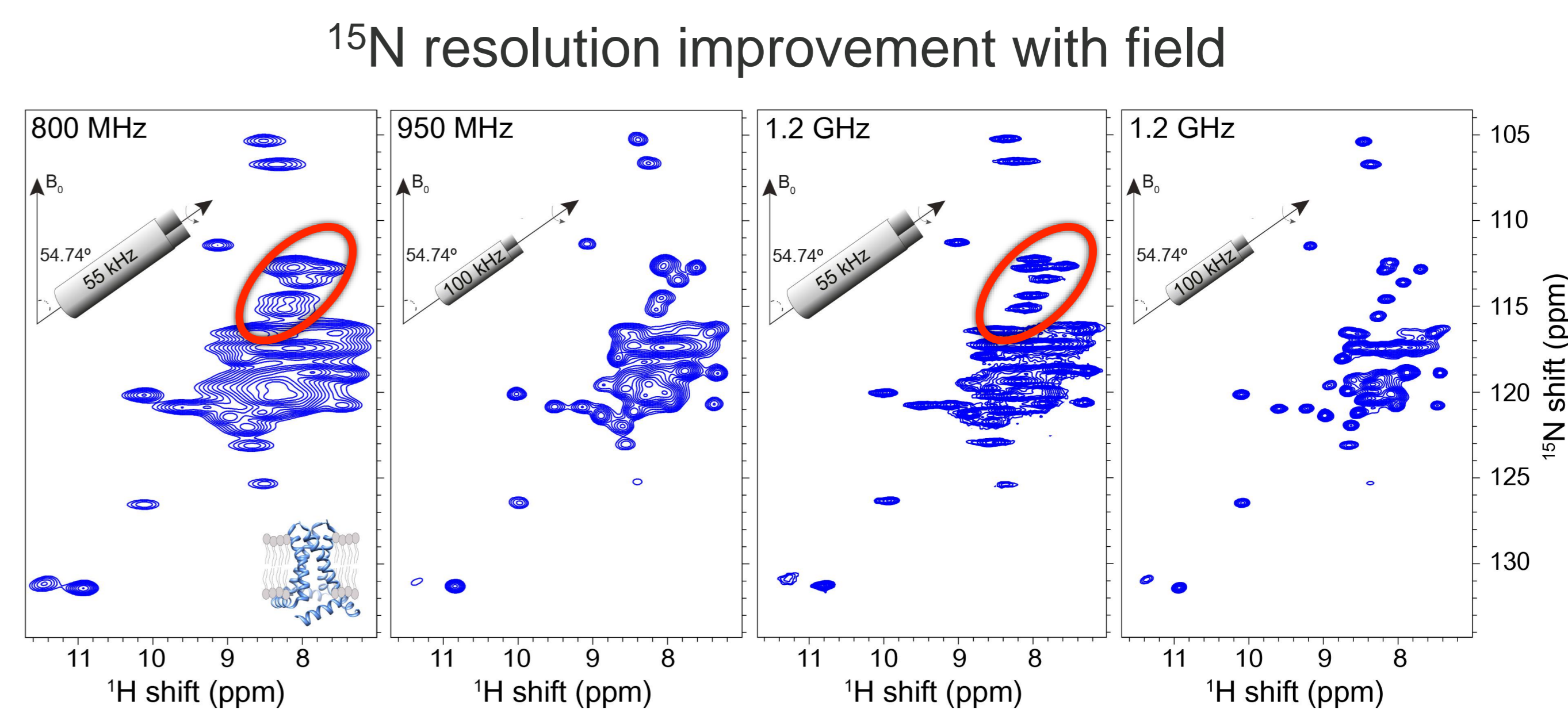
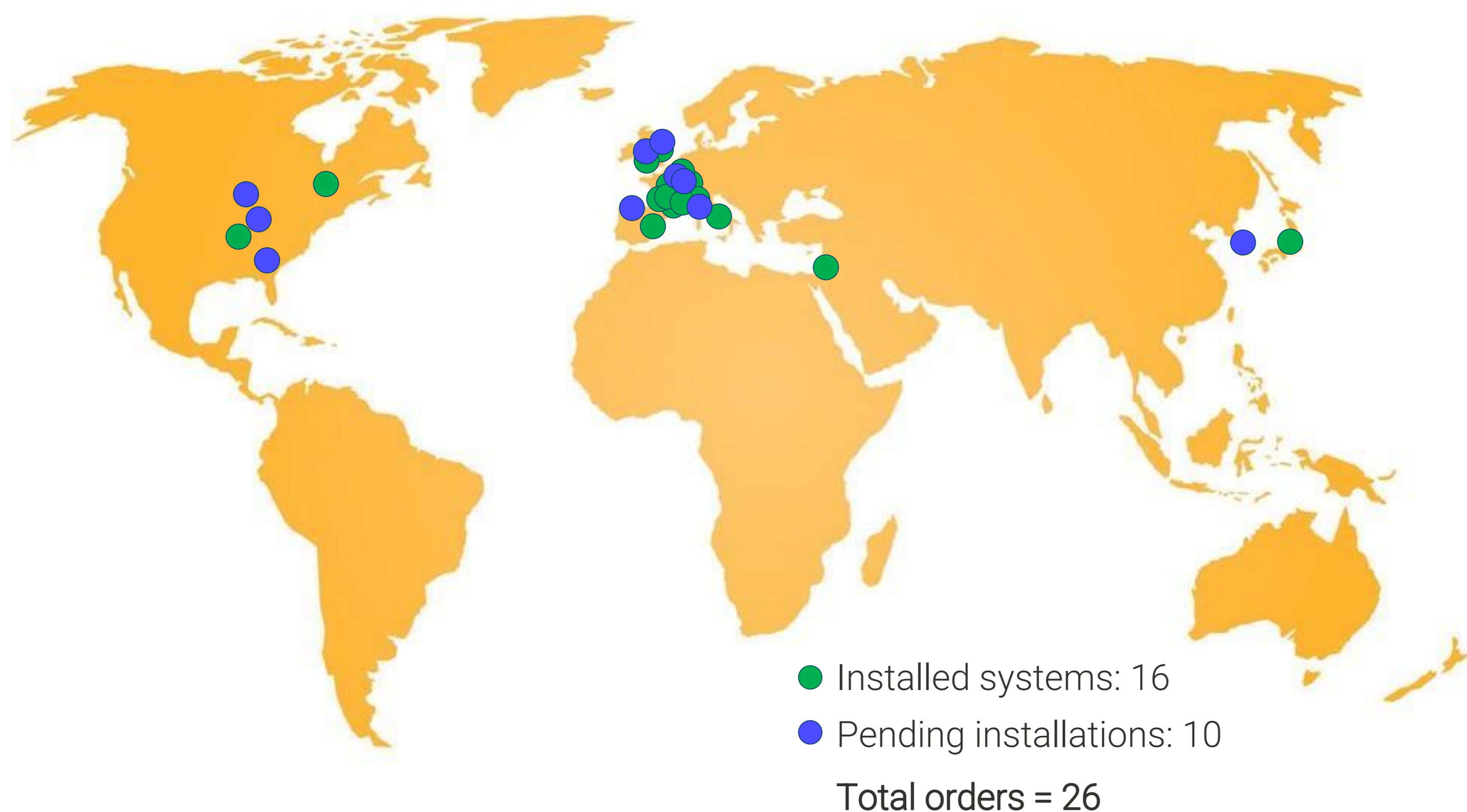


# The GHz-Class HTS/LTS Hybrid NMR Magnets

## Latest Update on GHz NMR Orders and Installations



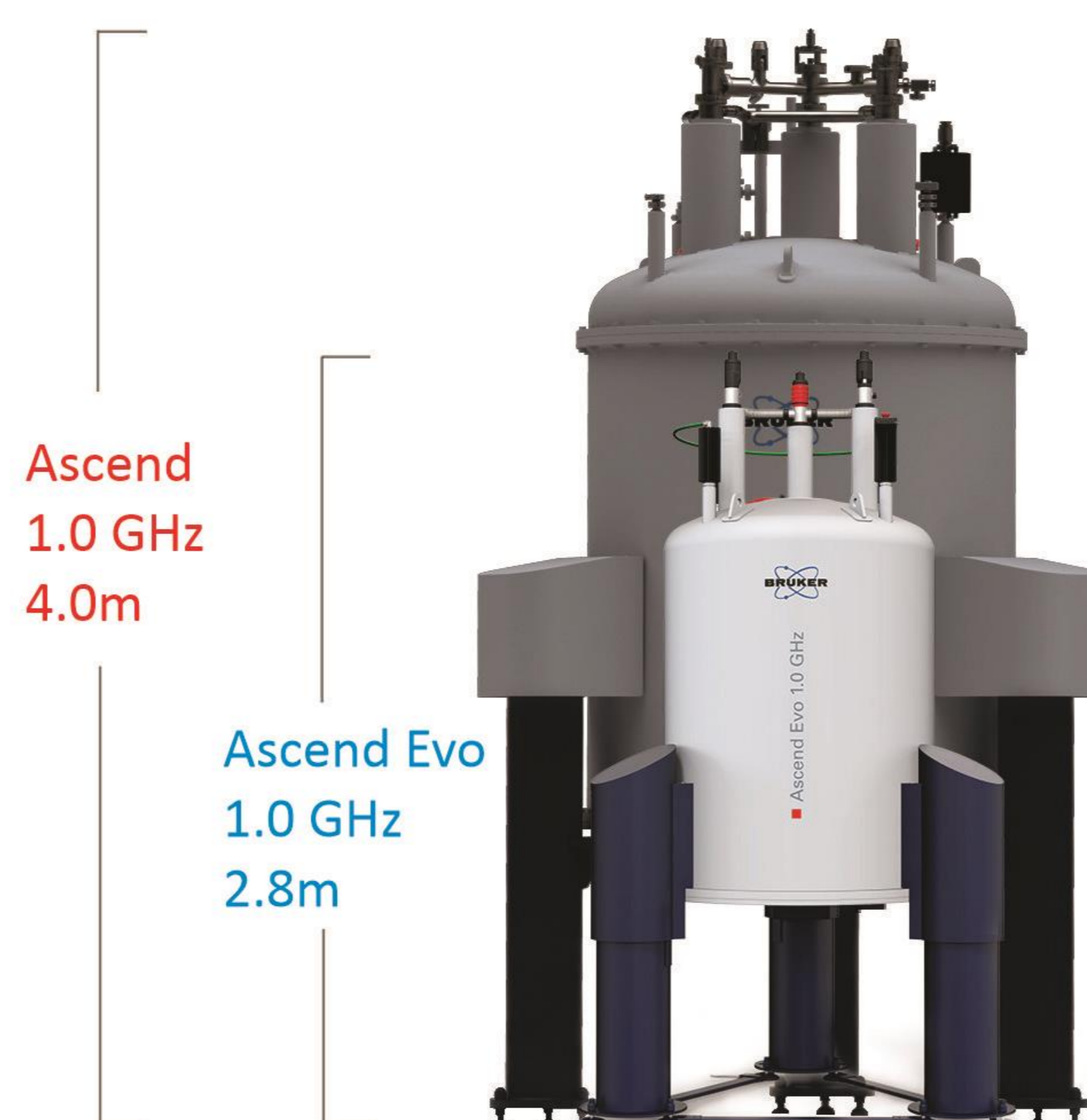
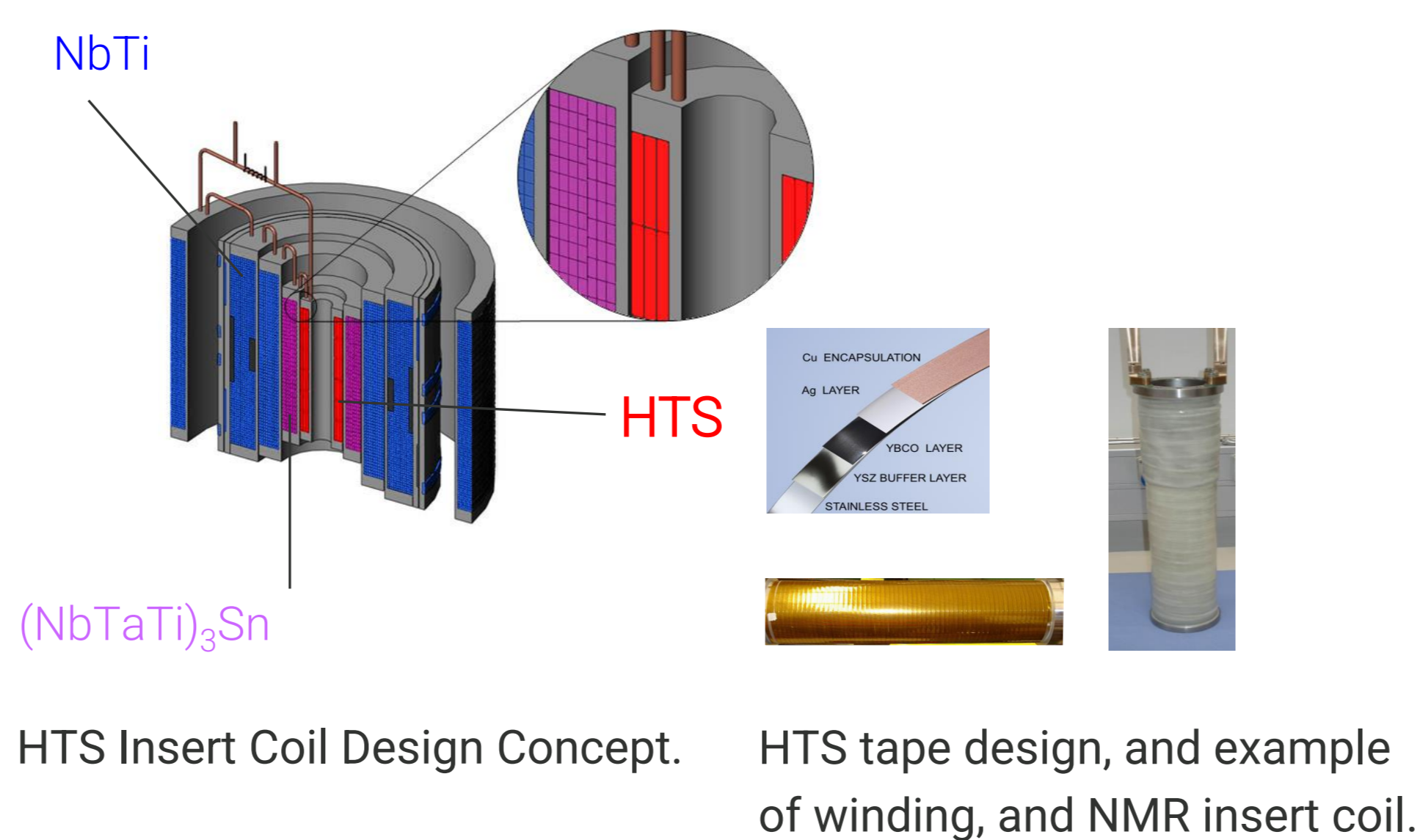
Sample: Influenza A M2<sub>18-60</sub>



Courtesy of Dr. Loren Andreas, Max Plank Institute for Multidisciplinary Sciences, Göttingen, Germany.

## The Ascend Evo 1.0 GHz, Single-Story HTS/LTS Magnet @ 4.2K

- Minimum ceiling height requirement of only 3.25 m.
- Weight of only 2,300 kg enabling easy unloading without crane, access via elevator and transport with a palette-jack through standards doors.
- Significantly reduced stray fields with the 5 G enclosed volume of 15% of previous magnets and requiring less than 1/3 of lab footprint for the complete NMR system.
- 4.2 K operation with no pump control cabinet, no sub-cooling pumps, and no pump lines.
- Over 130 days He hold time, with 70% reduction in operational costs for He refills due to a significantly smaller boil-off compared to the previous 1.0 GHz magnets.
- Only 30% liquid helium start-up volume for installation compared to the previous magnets.

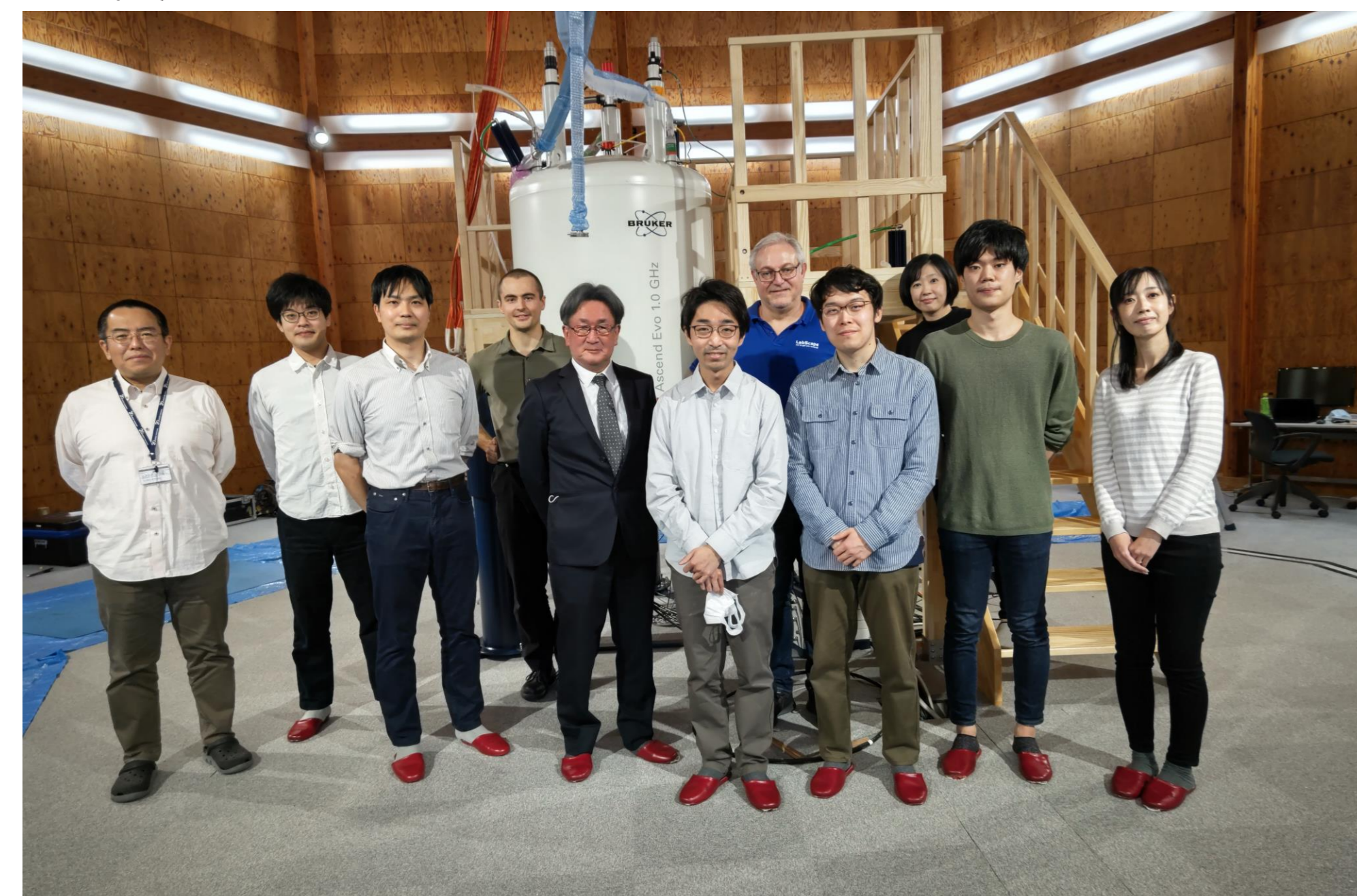


## The Ascend 1.1 / 1.2 GHz HTS/LTS Magnets @ 2K

- Highest field NMR magnets operating at 25.9 Tesla (1.1 GHz) and 28.2 Tesla (1.2 GHz) respectively.
- Integrated magnetic field homogenization to mitigate screening currents in HTS tapes.
- UltraStabilized sub-cooling technology for continuous long-term stable operation at reduced temperature.
- Active-Shielding combined with integrated external disturbance suppression technology, 5 Gauss at 4.3 m horizontally from the magnet.
- Minimum ceiling height requirement of 5.3 m.
- Operational weight ~ 9,400 kg.
- Helium hold time 60 days.



The Ascend 1.2 GHz installed for CNRS - Infranalytics at University of Lille, France, Courtesy of Prof. Olivier Lafon.



The scientific research team led by Dr. Ichio Shimada in front of the Ascend Evo 1.0 GHz NMR magnet installed at Riken Center for Biosystems Dynamics Research in Yokohama, Japan.



The Ascend Evo 1.0 GHz installed at the University of Barcelona for the BioNMR Group led by Prof. Miquel Pons Valles.