From the University of Oregon 12-Sept-2016:

University of Oregon releases an open source version of Agilent Technologies' NMR/MRI software, enabling continued discoveries in chemistry,molecular biology, medicine, materials science, imaging.

In a move that will benefit the international scientific community for years to come, the University of Oregon (UO) announced that it will release an updated version of Agilent Technologies' VnmrJ software, used for magnetic resonance imaging (MRI) and nuclear magnetic resonance (NMR) spectroscopy, and make the software and its source code freely available to the international scientific community. The software is used to operate scientific instrumentation, often with price tags ranging into millions of dollars, and can also be used for the analysis of data from these instruments on desktop computers.

"The UO has accepted ownership and custody of the software code as a gift from Agilent Technologies. The code will be maintained and supported by an international group of NMR experts for the benefit of the greater NMR and MRI community," said Michael Strain, a senior research associate and director of the UO's NMR Spectroscopy Facility. Strain credited UO Associate Vice President for Innovation Chuck Williams with having the legal agility to put the agreement in place in a timely manner. The version to be released by UO is known as OpenVnmrJ.

"We are pleased to make this gift of technology to the University of Oregon and the NMR community," said Patrick Kaltenbach, President, Life Sciences and Applied Markets Group, Agilent Technologies. "Open-sourcing VnmrJ will allow this key research technique in chemistry, molecular biology, medicine, materials science, imaging, and many other research disciplines to continue to be used for important discoveries in academic, government and commercial labs around the world."

For more than 30 years VnmrJ and its antecedents have served as the proprietary commercial software for operators of Varian and Agilent NMR spectrometers, and more recently also for Varian and Agilent MRI scanners. It contains more than 3 million lines of code, and represents nearly 300 person-years of software engineering time. There are over 7000 site licenses of the commercial version of VnmrJ around the world, with each site likely to have multiple operators. As a result, there are a very significant number of people using VnmrJ.

"Agilent's VnmrJ software is a vital tool in research in chemistry, biology and medicine," said Professor Gareth Morris of University of Manchester, UK. "Over the years the spectrometers and body scanners it supports have made major contributions in many branches of science, including the development of new medicines and new medical imaging methods. Agilent's gift of the full source code of this important resource to the magnetic resonance community helps safeguard the future of many tens of millions of dollars' worth of NMR equipment in industrial and academic laboratories, and will be widely and warmly welcomed."

In addition to MRI, OpenVnmrJ will be used for NMR spectroscopy. NMR spectroscopy makes use of the magnetic properties of certain atomic nuclei to gain detailed information about the structure, dynamics, reaction state, and chemical environment of molecules. The UO maintains five such NMR systems in its Center for Advanced Materials Characterization in Oregon (CAMCOR) shared instrument facility, overseen by Michael Strain, to support scientists in working in chemistry and many other fields of research. Chuck Williams, who directs the UO's Innovation Partnership Services unit, saw the agreement as an important opportunity to support the larger scientific community:

"Mike and the other research scientists at UO conduct world class research and provide key industry research services that could have been threatened if Agilent and the developer community hadn't stepped up to the plate. We are delighted to be the host for that community and thank Agilent for its generosity and support."

The OpenVnmrJ software will be made available on GitHub under the Apache 2.0 and GPLv3 open source licenses, allowing anyone to download and install the OpenVnmrJ programs and source code, as well as to modify and update the software. While the UO owns the title to OpenVnmrJ, Agilent retains the rights to VnmrJ 4.2 and previous commercial versions of the software. An external advisory body, the VnmrJ Open Source Steering Group (VOSSG), comprised of leading scientists from the international NMR community as well as some of the original software developers, will help manage the release of the software code and oversee its future development by the NMR community.

"There are very few other instances of an open-source release of formerly proprietary scientific software products of this magnitude," said Strain. "The release of this software will enable NMR labs around the world to continue to support their Varian/Agilent NMR systems, and will enable all sorts of future developments in the field that are yet to be imagined."

For more information on the OpenVnmrJ project, go to http://openvnmrj.org/

About UO Research & Innovation

The Office of the Vice President for Research & Innovation (OVPRI) promotes excellence in research, scholarship and creative inquiry at the University of Oregon — the state's only Association of American Universities member. Research, both basic and applied, is fundamental to the mission of the University and is essential to Oregon's economic and civic vitality. The office is committed to enhancing these efforts by providing administrative and financial support for sponsored programs, including identification of funding opportunities, proposal submission, research compliance, and contracts and grant administration. The office supports interdisciplinary research centers and essential core facilities, and emboldens innovation and economic development through strategic partnering and technology transfer initiatives. The UO has a long tradition of interdisciplinary research that continues through the production of new knowledge and innovative solutions to society's grand challenges.