

Division Director Computer Science and Mathematics Division

High-performance computing and predictive simulation underpin a large part of the critical scientific research being done in the world today. Oak Ridge National Laboratory (ORNL) is a world leader in these fields, with a growing research emphasis in national and international efforts in energy assurance, modeling climate change, advanced materials research, neutron sciences and biosciences. As a world leader in HPC, Oak Ridge is the home of the Department of Energy National Center for Computational Sciences (NCCS) and , in partnership with the University of Tennessee, home of the NSF's National Institute for Computational Sciences (NICS). Both centers provide terascale computing capability, going to petascale later in 2008. The current NCCS roadmap points to exascale computing at ORNL within the next decade.

Oak Ridge National Laboratory is seeking outstanding candidates for the position of Director of the Computer Science and Mathematics (CSM) Division. The division is ORNL's premier source of basic and applied research in high-performance computing, applied mathematics, computational sciences and intelligent systems. The CSM Director reports to the Associate Laboratory Director (ALD) for Computing and Computational Sciences and is responsible for the organization's technical leadership, operation and management. In concert with the CSM Division staff and with broad national and international collaboration, the successful candidate will create and execute an imaginative and far-sighted research program that will define long-term directions for high-end computing for the laboratory and the nation.

The division is well known for its outstanding technical staff, making key contributions across a broad domain of science fields, including climate modeling, applied mathematics, complex systems and a wide spectrum of computational biology, materials science, chemistry, earth sciences and astrophysics. The CSM Division is comprised of approximately 90 technical staff (majority are Ph.D. level) and approximately 50 postdoctoral, masters, and undergraduate appointees. Several of the CSM staff have joint appointments at the University of Tennessee, as well as at other top research universities. The division enjoys a broad funding base that includes DOE Office of Science programs (SciDAC, INCITE, etc.), laboratory directed R&D, NSF, and a large variety of work for other government agencies. In addition, CSM competes successfully for laboratory program and strategic investment funding.

The new director will be encouraged to grow the division's computer science portfolio to support the laboratory's goals in extreme-scale computing. ORNL will be delivering and supporting multiple petascale systems in 2008 and, in collaboration with industry, has developed a roadmap to achieve exascale computing within the next decade. These missions come with huge research investment requirements and opportunities in extreme-scale architectures, algorithms, development environments, tools, languages, runtime environments, I/O, performance analysis and other computer science disciplines.

The major duties and responsibilities of the position are, but are not limited to, the following:

- Develop and lead a successful program in computer and computational science research;
- Interact with sponsors, program offices and other agencies to develop and maintain program funding for basic and applied research;
- Represent division work to review committees and outside bodies as appropriate;
- Collaborate with application scientists in the laboratory to advance the scientific mission of the laboratory;
- Attract, retain and lead highly qualified staff and support staff professional development;
- Lead the development of new programs and research directions;
- Provide leadership in all areas of ES&H and full implementation of integrated safety management;
- Ensure staff compliance with laboratory policies, standards and procedures and other regulations;

The successful candidate will organize, direct, and manage all functions of the Computer Science and Mathematics Division in accordance with policies, procedures and mandates. The director will team with the ALD and other division directors in strategic planning, top-level program development and execution; establish goals and schedule resources required to meet the objectives of the division; forecast the needs of the division in manpower, equipment, facilities, etc.; establish long-range plans for current programs and proposed programs in the division; and provide aggressive leadership for the organization, in both a managerial and technical capacity.

The position requires a Ph.D. or equivalent education/experience in an area of computational science or computer science and an internationally recognized record of research in that field. Candidates should have at

least ten (10) years experience, with at least five (5) years of demonstrated management experience. The proven ability to plan, organize, and manage the activities of a diverse organizational unit within a major R&D directorate is also required. Candidates must have excellent communication skills (both oral and written) and enjoy working in a team environment.

For immediate consideration, send a current resume and a list of three or more references to: **Computing and Computational Sciences Directorate, Dept. 2008CSM, Oak Ridge National Laboratory, P. O. Box 2008, Oak Ridge, TN 37831-6359** or Email to ridzde@ornl.gov or CCSD_Staffing@ornl.gov (Please state job title when applying; if application is made via email, please state job title in subject line.)

Search Committee Members can be contacted for additional information: Thomas Zacharia, Jeff Nichols, Dawn Ridz, Debbie McCoy, Al Geist, Brian Worley, Chris Kemper, James Hack, Gilbert Weigand, Thomas Schulthess, Sid Karin and Thomas Sterling.

For more information about ORNL and the CSM Division go to <http://www.ornl.gov> and <http://www.csm.ornl.gov>, respectively.

ORNL, a multi-program research facility managed by UT-Battelle, LLC, for the U.S. Department of Energy, is an equal opportunity employer committed to building and maintaining a diverse work force.