

University of Oxford

University Offices, Wellington Square, Oxford OX1 2JD

From Research Services



To whom it may concern.

Ref. R06020/CN001

7 April 2008

Open Source Licence - Chaste

The University has undertaken research leading to the development of the Software and the University wishes to make the Software publicly available, without charge, for scientific use under the terms of an open source software licence. Accordingly the University makes available the Software on the terms set out in this letter. Words and expressions used in this letter have the meaning set out in the Schedule.

The University grants to you, the party in receipt of a copy of this letter wishing to obtain and use copies of the Software, a licence to the Software under the terms of the Open Source Licence. No license to use any intellectual property rights is granted or implied by this letter except the rights expressly granted in this letter.

In the event of any dispute, claim or proceeding arising out of or relating to this letter you agree to use good faith efforts to work with the University to resolve the same, involving where necessary senior executives of the parties. In the event that any disputes cannot be resolved in this manner then you agree that the matter shall be settled exclusively by reference to English Law and the English Courts.

You are not required to accept the contents of this letter, since you have not signed it. However nothing else grants you permission to download and use the Software. Therefore by downloading and using copies of the Software you accept the terms of this letter.

Yours sincerely,

A large, stylized handwritten signature in black ink, appearing to be 'Dr Phil Clare'.

Dr Phil Clare
Associate Director

PMC/MJL

SCHEDULE

Open Source Licence means the terms of the GNU Lesser General Public Licence (LGPL) version 2.1, February 1999, as published by the Free Software Foundation.

Software means the body of source code and object code and associated intellectual property rights entitled "Cancer, Heart and Soft Tissue Environment (Chaste)" as described below.

The Chaste project has been running since Spring 2005 and it has resulted in a package of code and libraries that are being developed primarily for modelling cardiac function and tumour growth. Chaste stands for "Cancer, heart and soft-tissue environment". There are about ten regular developers who have worked on Chaste using an agile programming methodology. The current code base contains on the order of 50,000 lines of code and unit tests (written in C++) plus a small number of helper scripts (written in Python). The PETSc library is used for large-scale linear algebra functionality, the MPI library for distributed-memory parallelism and the BOOST libraries for small-scale linear algebra and serialization.

The Chaste software is organised into several distinct "libraries". Each of these libraries consists of source code which can be compiled into a single library module file together with independent unit test code (using the CxxTest testing framework). For all practical purposes, including licencing under the LGPL open source licence, the term "library" is deemed to include the source code, the unit test code and the helper scripts. Currently the libraries consist of six core modules and three application modules. The core modules are global (for parallel setup and error handling), io (for data input and output), linalg (for interfacing PETSc linear algebra routines), mesh (for triangular and tetrahedral mesh functionality), ode (for solving ordinary differential equations) and pde (for solving partial differential equations using the finite element method). The main application library modules for cancer, heart and mechanics are built using the functionality of the core library modules and use state-of-the-art numerical technique and cell models.

University means the Chancellor, Masters and Scholars of the University of Oxford, having an administrative office at Wellington Square, Oxford OX1 2JD.

The University wishes to place on record its thanks to the staff and students of the University of Birmingham, Birmingham Research and Development Limited, the University of Nottingham, Nottingham University Consultants, the University of Sheffield and Sheffield University Enterprises Limited, who contributed to the development of the Chaste software and who assisted in making available the Chaste software under an open source licence.