POSITION DESCRIPTION

TITLE MSE Project Scientist

GROUP Maunakea Spectroscopic Explorer (MSE) Project Office

INCUMBENT TBD

REPORTS TO Project Manager (Kei Szeto)

POSITION SUMMARY

Responsible for leading the scientific development of the project, and for developing and promoting an international base of support in the science communities of MSE's partners and prospective partners. The Project Scientist works in close collaboration with the Project Manager and Project Engineer, ensuring that MSE's design and construction will facilitate operations that meet the aspirations of the MSE communities as expressed by the top level scientific and operational requirements. After the construction phase, the Project Scientist will manage the science verification and validation, i.e., commissioning, of the MSE observatory.

ESSENTIAL FUNCTIONS

1. The Project Scientist is the direct supervisor of the System Scientist and future scientist positions, and the Project Office's coordinator with the Instrument Scientists, who are associated with MSE's contributing participants, to facilitate complementary support and collaboration.

2. Serve as the lead scientific representative within the international astronomical community.

3. Support the Management Group / Collaborative Board in promoting and developing new partnership opportunities.

4. Engage the Science Team and Science Advisory Group to develop, maintain, and implement the foundational documentation that states MSE's scientific aspirations and operational objectives, including the Detailed Science Case, the Science Requirements Document, the Concept of Operations, the Design Reference Survey, etc.

5. Serve as the authority to provide guidance and oversight to the Project Office in all areas of development affecting science capabilities, including the development of the Science Calibration Plan, Program Execution Software Architecture software suite, and operations plan.

6. Provide scientific interpretation to the technical requirements for the development phase to ensure MSE is designed, constructed, and able to operate in a manner that meets the Science Requirements, including supporting trade studies and Configuration Control Board activities as means of reconciling system performance, budget, and schedule.

7. Develop the Science Verification and Validation Plans and able to lead the commissioning work.

8. Respect the diversity of the CFHT workforce by sharing ideas in a collaborative and positive manner, addressing problems and issues constructively, and finding mutually acceptable and practical solutions.

9. Commit to a high standard of safety by maintaining CFHT's safety policies

MINIMUM QUALIFICATIONS AND REQUIREMENTS

1. Ph.D. in Astronomy, with an excellent record of research publications in peer-reviewed journals and international recognition within their field.

2. Strong and demonstrable leadership skills, including the management of large international scientific collaborations.

3. Excellent English verbal and written communication skills with demonstrable experience in facilitating effective teamwork at scientific, technical, managerial, and outreach levels.

4. Excellent presentation skills with modern communication techniques to interact with geographically and culturally diverse teams.

5. Meeting objectives in a relatively autonomous work environment, without close direct supervision, and performing as a team member by supporting and contributing to the project objectives.

6. Ability to synthesize technical information to identify and understand the impacts on scientific performance.

7. Ability and willingness to work irregular hours and to travel internationally.

8. During the construction phase, the ability to perform duties safely and effectively at the site of the CFH telescope, characterized by an altitude of 4200 meters, to be certified by a physician.

DESIRABLE QUALIFICATIONS

1. Previous experience with scientific instrumentation or facility development, including extensive interactions with technical and management teams.

2. Experience in astronomical research observations that is closely aligned with the Science Case of MSE.

3. Ability to communicate in other partner languages.

4. Experience with the planning and directing activities and operations of an astronomical observatory.

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed above are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.