



DOCTORAL DISSERTATION APPROVAL

The student should submit this form directly to the Faculty of Graduate and Postdoctoral Studies together with other forms for final dissertation submission.

Student: Brosch Tom Student number: 17362104
Given Name Family Name

in partial fulfillment of the requirements for the degree of: PhD in: Biomedical Engineering
Degree Name (e.g. PhD) Graduate Program Name

Date of Dissertation Defence: 2016/06/13
Date (yyyy/mm/dd)

Dissertation Title: EFFICIENT DEEP LEARNING OF 3D STRUCTURAL BRAIN MRIS
FOR MANIFOLD LEARNING AND LESION SEGMENTATION WITH
APPLICATION TO MULTIPLE SCLEROSIS

As research supervisor for the student named above, I certify by signing below that I have read this student's defended dissertation (title above), have approved changes required by the final examiners, and recommend the dissertation to the Faculty of Graduate and Postdoctoral Studies for acceptance. **NOTE: We are not permitted to accept electronic signatures.**

REQUIRED: I verify and endorse the content of the Preface: RT (Supervisor's initials)

EITHER I verify that approval of UBC Office of Research Services was not required: RT (Supervisor's initials)

OR I verify that approval of UBC Office of Research Services was obtained for research: _____ (Supervisor's initials)

Roger Tam

Name of Research Supervisor

Roger Tam
Signature of Research Supervisor

2016/06/24
Date (yyyy/mm/dd)

The undersigned certify that they recommend this dissertation to the Faculty of Grad. and Postdoc. Studies for acceptance:

Martin McKeown

Name of University Examiner

Martin McKeown
Signature of University Examiner

June 13/16
Date (yyyy/mm/dd)

Purang Abolmaesumi

Name of Examining Committee Member

Purang Abolmaesumi
Signature of Examining Committee Member

June 13, 2016
Date (yyyy/mm/dd)

James L. Atte

Name of Examining Committee Member

James L. Atte
Signature of Examining Committee Member

June 13, 2016
Date (yyyy/mm/dd)

Name of Examining Committee Member

Signature of Examining Committee Member

Date (yyyy/mm/dd)

Note: A minimum of three signatures on this form is required for approval of the dissertation; the research supervisor's signature, a University examiner's signature, plus the signature of at least one more member of the examining committee.

For convenience, each party required to sign this form may sign a separate copy, scan the form, and return it to the student as a PDF. The signed copies together will constitute a single fully signed document.

Faculty of Graduate Studies use only:

Date thesis approved in cIRcle

Receipt email sent

Thesis Clerk