BSc in Reproductive & Developmental Sciences &

BSc in Surgery and Anaesthesia Project Outline 2012-2013

**Project Title: Cartilage wear and the effect on subchondral bone**

**Academic Supervisor: Dr Richie Abel**

**Co-supervisor: Dr Milad Masjedi and Prof Justin Cobb**

**Who will be responsible for day-to-day supervision?**

**Milad Masjedi**

**Which of the following sites will the student be based for the research:**

(Double click the appropriate check box below)

**St Mary’s [ ]  Charing Cross [x]  Chelsea & Westminster [ ]  South Kensington [ ]**

**Hammersmith [ ]  other (give details)**

**Contact Details of Person whom Medical Student should contact for further details:**

Name: Milad Masjedi Email: m.masjedi@imperial.ac.uk Tel:

Name: Richie Abel Email: richard.abel@imperial.ac.uk Tel:

**Is this a clinical [x]  or laboratory [x]  project?**

(Double click the appropriate check box to indicate your choices)

**Suitable project for: Reproductive and Development**  **Sciences** Yes **[ ]** No **[ ]**

**Surgery and Anaesthesia** Yes **[x]** No **[ ]**

**Synopsis of project (background/research question/methods to be used/relevant key references):**

The aim of the project is to determine whether and how hip joint shape, cartilaginous wear patterns and changes in subchondral bone are related in osteoarthritis. Samples selected for the study are femoral heads collected form consenting total hip arthroplasty patients.

The student will be mentored by a musculoskeletal scientist, bio-engineer and clinician, and should be able to form specific novel research questions/hypotheses. Joint shape, cartilage wear and bone structure will be quantified using medical-CT, laser scanning and micro-CT respectively. The student will also need to frame the research in a wider context, for example whether and how cortical and trabecular tissues are capable of adapting to cartilage loss.

Will the research involve work done under the Animals (Scientific Procedures) 1986 Act? Yes **[ ]** No **[x]**

**If YES*,***

Will the student be required to undergo Home Office training? Yes **[ ]** No **[ ]**

Are the appropriate project and personal licences in place? Yes **[ ]** No **[ ]**

**Project licence**:

Licensee

Date of issue

Number

**Personal licence**:

Licensee

Number

**Will the research involve the use of genetically modified tissue?** Yes **[ ]** No **[x]**

**If YES**

Has the work been approved by the relevant GM Committee Yes **[ ]** No **[ ]**

Date approval was granted

Reference Number

**Will the project involve work on human subjects, human tissue or access to confidential patient information?** Yes **[x]** No **[ ]**

## If YES

## has ethical approval been obtained Yes [x]  No [ ]

## Date approval was granted

## IC REC or IRAS REC number

Approval was obtained form eth tissue bank and individual patient consent (Imperial College Tissue Bank application number R11030).

**Note: Approval for any of the above MUST be in place before the student begins the project.**

**A risk assessment form will be required.**

**Project Payment**: I have an F account Yes **[x]** No **[ ]**

## If you have an F account please give full account code:

Dr Richard Abel WSSU.F36744