CLAIMS

1. A method for designing a surgical guide for repairing a joint of a patient, comprising:

creating an electronic model of an anatomy of the joint of the patient from electronic image data of the joint of the patient;

creating an interactive computer display for a surgeon to select a desired position or orientation of an implant for replacing at least a portion of the joint of the patient;

creating a surgical guide configured to accommodate a surgical instrument to achieve the desired position or orientation of the implant, wherein the surgical guide is attached or linked to a mold having a patient-specific contact surface derived from the electronic image data for engaging at least a portion of the joint of the patient.

2. The method of claim 1, wherein the joint of the patient is a hip joint, wherein the desired position or orientation of the implant is a desireddesried acetabular cup abduction, adduction, anteversion, retroversion or rotation.

3. The method of claim 2, wherein the patient-specific contact surface is configured to engage at least a portion of an acetabulum of the hip joint.

4. The method of claim 2, wherein the patient-specific contact surface is configured to engage at least a portion of an acetabular rim of the hip joint.

5. The method of claim 2, wherein the patient-specific contact surface is configured to engage at least a portion of an acetabulum fossa of the hip joint.

6. The method of claim 1, wherein the joint of the patient is a shoulder joint, wherein the desired position or orientation of the implant is a ~~desrieddesired~~ glenoid component abduction, adduction, anteversion, retroversion or rotation.

7. The method of claim 6, wherein the patient-specific contact surface is configured to engage at least a portion of a glenoid of the shoulder joint.

8. The method of claim 6, wherein the patient-specific contact surface is configured to engage at least a portion of a glenoid rim of the shoulder joint.

9. The method of claim 1, wherein the surgical instrument is a reamer.

10. The method of claim 1, wherein the patient-specific contact surface is configured to engage at least a portion of an articular surface of the joint of the patient.

11. The method of claim 10, wherein the at least a portion of the articular surface of the joint of the patient includes one or both of normal and/~~or~~ diseased or damaged cartilage.

12. The method of claim 1, wherein the patient-specific contact surface is configured to engage at least a portion of a non-articular surface of the joint of the patient.

13. The method of claim 1, wherein the patient-specific contact surface is configured to engage at least a portion of an osteophyte of the joint of the patient.

14. A patient-specific reaming guide tool for use in joint arthroplasty for repairing a joint of a patient, comprising:

a mold having a patient-specific contact surface for engaging at least a portion of the joint of the patient and

an alignment hole configured to provide a desired pathway for orienting and inserting an alignment mechanism configured to guide a reaming device, wherein the alignment mechanism includes a pin, a metal bushing, or an opening to accommodate and direct the movement of the reaming device, wherein the desired pathway includes one or both of a desired position and/~~or~~ orientation of an implant created for replacing at least a portion of the joint of the patient, wherein the desired position or orientation is selected by a surgeon via an interactive computer display.

15. The tool of claim 14, wherein the joint of the patient is a hip joint or a shoulder joint.