## Hugh Williamson Royal Children's Hospital, Melbourne Clinical Gait Analysis Course

## Identifying the impairments that affect walking

This is an introduction to the capture, processing and interpretation of clinical gait analysis data. The approach is that used for children with cerebral palsy who have gait analysis to help planning complex orthopaedic surgery but will be informative to anyone involved in instrumented clinical gait analysis. This course is being conducted by local and international faculty headed by Prof Kerr Graham, Director, Hugh Williamson Gait Laboratory, Melbourne, Prof Richard Baker, University of Salford, UK and Dr Adam Shortland, One Small Step Gait Laboratory, Guys Hospital. London, UK.

| Day one |  |                    |  |
|---------|--|--------------------|--|
| 9:00    | Introduction                                   | Prof Kerr Graham   |  |
| 9:15    | Basic concepts/Phases of Gait/Temporal/spatial | Prof Richard Baker |  |
| 9:45    | Installing and maintaining a gait laboratory   | Dr Morgan Sangeux  |  |
| 10:30   | Break  |                    |  |
| 11:00   | The conventional gait model & marker placement | Prof Richard Baker |  |
| 11:30   | Functional joint modelling                     | Dr Morgan Sangeux  |  |
| 12:10   | Marker placement practical demonstration       | Groups             |  |
| 13:00   | Lunch  |                    |  |
| 14:00   | Normal gait kinematics                         | Prof Richard Baker |  |
| 15:00   | Break  |                    |  |
| 16:00   | Physical exam and problem solving              | Dr Jill Rodda      |  |
| 17:00   | Quality assurance                              | Prof Richard Baker |  |
| 17:30   | Finish   |                    |  |
| 17:30-  | Welcome drinks at Rydges                       |                    |  |
| 18:30   |  |                    |  |

| Day two |  |                            |  |
|---------|--|----------------------------|--|
| 8:30    | Normal gait kinetics and muscle activity             | Dr Adam Shortland          |  |
| 9:30    | The gait analysis process                            | Prof Richard Baker         |  |
| 9:45    | Overview of impairment focussed interpretation       | Prof Richard Baker         |  |
| 10:30   | Break  |                            |  |
| 11:00   | Gait dysfunction in CP                               | Prof Kerr Graham           |  |
| 11:30   | Recognising features due to bone and joint pathology | Prof Richard Baker         |  |
| 12:00   | Recognising features due to neuromuscular pathology: | Dr Adam Shortland          |  |
|         | Spasticity   |                            |  |
| 12:30   | Guided case study                                    | Ms Tandy Hastings-Ison     |  |
| 13:00   | Lunch  |                            |  |
| 14:00   | Case study in groups                                 | Groups                     |  |
| 15:30   | Break  |                            |  |
| 16:00   | Review of cases                                      | Groups facilitated by Adam |  |
| 16:45   | Beyond barefoot walking at self-selected speed       | Prof Richard Baker         |  |
| 17:15   | Finish   |                            |  |







| Day three |  |                               |  |  |
|-----------|--|-------------------------------|--|--|
| 8:30      | Recognising features due to neuromuscular pathology: | Dr Adam Shortland             |  |  |
|           | Muscle contracture and weakness                      |                               |  |  |
| 9:30      | Case studies in groups                               | Groups                        |  |  |
| 10:45     | Break  |                               |  |  |
| 11:15     | Review of cases                                      | Groups facilitated by Richard |  |  |
| 12:00     | EMG Demonstration and interpretation                 | Dr Adam Shortland             |  |  |
| 13:00     | Lunch  |                               |  |  |
| 14:00     | Gait improvement surgery                             | Prof Kerr Graham              |  |  |
| 15:00     | Post-surgical rehabilitation                         | Ms Pam Thomason               |  |  |
| 15:30     | Break  |                               |  |  |
| 16:00     | Outcome evaluation                                   | Prof Richard Baker & Ms Pam   |  |  |
|           |  | Thomason                      |  |  |
| 16:30     | Summary and review                                   | Kerr Richard Adam             |  |  |
| 16:45     | Finish   |                               |  |  |
| 16:50-    | Walk to RCH to tour the new Gait Laboratory          | optional                      |  |  |
| 17:50     |  |                               |  |  |





