



Adaptive Clinical Trial Designs

21-22 February - Melbourne

25-26 February - Brisbane

28 February-1 March - Sydney

Day One

Time	Title and details	Presenter
9.00-9.45	Lecture 1 - Introduction to multiple testing in trials <ul style="list-style-type: none"> – Reasons for multiplicity in trials – Types of error rate – Simple corrections 	James Wason
9.45-10.30	Practical 1 and morning tea	
10.30-11.30	Lecture 2 - Advanced multiplicity correction <ul style="list-style-type: none"> – Hierarchical testing procedures – Closed testing procedures – Graphical approaches – Multiplicity correction in practice 	David Robertson
11.30-12.30	Practical 2	
12.30-13.15	Lunch	
13.15-14.00	Lecture 3 - Introduction to adaptive design <ul style="list-style-type: none"> – Motivation – General concepts common to adaptive designs (illustrated using single arm trial designs) – Bayesian vs frequentist – Design of two-stage single-arm trials (i.e., Simon's designs) – Adaptive two-stage designs 	Adrian Mander
14.00-15.00	Practical 3 and afternoon tea	
15.00-16.00	Lecture 4 - Group sequential designs and MAMS designs 1 <ul style="list-style-type: none"> – Determining common boundary types (e.g., Pocock, O'Brien-Fleming, the triangular test) – Error-spending designs – General theory for normal linear models – Extension to multi-arm multi-stage designs – Simultaneous vs. separate stopping – Extensions to time-to-event and binary outcomes – Multi-arm trials without a control group 	Michael Grayling
16.00-17.00	Practical 4	



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Day Two

Time	Title and details	Presenter
9.00-10.00	Lecture 5 - MAMS designs 2 <ul style="list-style-type: none"> – Drop-the-loser designs – Adaptive randomisation – Adaptive enrichment – Umbrella designs 	James Wason
10.00-11.00	Practical 5 and morning tea	
11.00-11.45	Lecture 6 - platform trials and master protocols <ul style="list-style-type: none"> – Master protocols and regulatory issues – Trials within cohorts – Adding in new research questions/trials – Error rates 	Adrian Mander
11.45-12.30	Practical 6	
12.30-13.15	Lunch	
13.15-14.00	Lecture 7 - Sample size re-estimation <ul style="list-style-type: none"> – Overview of the types of sample size re-estimation – Unblinded estimation of effect sizes – Blinded estimation of the variance component in parallel arm trials – Modifications to improve error control (e.g., sample size inflation factors) – Extension to more complex designs (e.g., cluster randomised trials) 	Michael Grayling
14.00-14.45	Practical 7 and afternoon tea	
14.45-15.30	Lecture 8 - Analysis after adaptive trials <ul style="list-style-type: none"> – Adjusted p-values – Construction of confidence intervals – Bias-adjusted estimation 	David Robertson
15.30-16.30	Practical 8	
16.30-17.00	Lecture 9 - Practical issues/Q&A	