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| ***C:\Users\maelliot\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Outlook\U8LF8GAO\psi-logo.jpg*** **8th – 9th November 2016**Crowne Plaza Heathrow, UK | A PSI Training Course onIntroduction to SimulationPresented byLes Huson  |

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| The aim of this course is to provide participants an understanding simulation techniques. The 2 day course includes a variety of practical examples and example code will be provided in both SAS and R.**The following topics will be covered:** |
| * Pseudo-random number generators in SAS and R. Generating samples of univariate data: The “sample” function in R. Generating samples from distributions with specified skewness and kurtosis.
* The CDF method for generating pseudo-random data samples. Univariate nonparametric simulation using empirical CDFs. The Metropolis Hastings algorithm
 | * Generating samples of correlated bivariate data. Restrictions on possible correlations and its implication for the NORTA method. Bivariate binary data. Correlated bivariate nonparametric simulation using convex hulls.
* Generating multivariate normal data. Multivariate non-normal data using the NORTA method. Multivariate correlated binary and ordinal data. Multivariate nonparametric simulation using density surrogates.
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Dr Les Huson has more than 30 years’ experience working as a consultant biostatistician in the pharma and biotech industries, and also holds an appointment as Honorary Lecturer in Medical Statistics in the Centre for Pharmacology and Therapeutics Imperial College London. His special interests are in application of simulation techniques, and the use Bayesian methodologies, in the design and analysis of clinical trials.

**Course runs from: 10:00 – 17.30 (registration from 09:30) on Day 1 and
 09:00 – 14:00 on Day 2.**

**Registration**

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| **Please register online at** [**www.psiweb.org**](http://www.psiweb.org/) **and click on Events; payment now available online.****Registration costs (includes lunch and refreshments)*****PSI are holding a limited number of hotel rooms until the 21st October 2016 which will be allocated on a first come first served basis*** |
| **Registration before 10th October 2016** PSI Members: £495 plus VATNon-members: £570 plus VAT (includes PSI membership for 1 year) **Registration on or after 10th October 2016**PSI Members: £595 plus VATNon-members: £670 plus VAT (includes PSI membership for 1 year)  |

PSI aims to be fully inclusive and endeavours to accommodate delegates with disabilities wherever possible.  Please help us to help you by letting us know if you require additional facilities or have any special requirements.  Please contact us on +44 (0)845 180349 or at PSI@mci-group.com for further information.

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