

# Guidelines for reporting the use of column chromatography in proteomics

## To the Editor:

We wish to announce the column chromatography module (MIAPE-CC) of the minimum information about a proteomics experiment (MIAPE) guidelines<sup>1</sup>, specifying the minimum information that should be provided when reporting the use of column chromatography in a proteomics experiment (**Box 1**). MIAPE-CC constitutes a further component of the MIAPE documentation system, developed by proteomics researchers working under the aegis of the Human Proteome Organisation's Proteomics Standards Initiative (HUPO-PSI; <http://www.psidev.info/>). Prior modules for mass spectrometry and gel electrophoresis have already been described in *Nature Biotechnology*<sup>2-4</sup>.

MIAPE-CC covers the use of columns for protein or peptide separation, with a view to supporting the sharing of best practices, validation of results, discovery of results and sharing of experimental data sets. For a full discussion of the principles underpinning this specification, please refer to the MIAPE 'Principles' document<sup>1</sup>. Specifically, the CC module covers the configuration of a column, the selection of a suitable mobile phase, the gradients employed during the column run, the collection of fractions and the associated detector readings. The guidelines request a brief description of the sample, sample processing before chromatography and the injection procedures. They do not address subsequent protein identification, chromatographic performance assessment procedures or the mechanisms by which data are captured, transported and stored. Note that where multidimensional chromatography is used, the module should be adhered to for each dimension, with specific fractions from one column being used as the input sample for another.

The full specification of the MIAPE-CC module is provided as **Supplementary Table 1** and the most recent version can be obtained through the HUPO-PSI website. Note that subsequent versions of this document may have altered scope, as will almost certainly be the case for all the MIAPE modules. To contribute or to track progress to remain 'MIAPE compliant', browse the HUPO-PSI website (<http://www.psidev.info/miape/>).

Note: Supplementary information is available on the *Nature Biotechnology* website.

## Box 1 Contents snapshot for MIAPE-CC

The full MIAPE-CC document is divided into two parts: an introduction providing background for the module and an overview of its content, then a full list of items to be reported. The MIAPE-CC guidelines themselves are subdivided as follows:

- General features, such as analyst details, description of the sample, sample preparation and the injection procedure.
- Description of the column(s) used: product details and physical characteristics including the stationary phase, and the chromatography system used for the separation.
- Mobile phase: the concentrations of each of the mobile phase constituents.
- Properties of the column run (time, gradient (with reference to the mobile phases described in section 3), flow rate and temperature).
- Pre- and post-run processes, such as equilibration, calibration or washing.
- Column outputs: chromatogram; details of fractions collected.

## COMPETING FINANCIAL INTERESTS

The authors declare no competing financial interests.

Andrew R Jones<sup>1</sup>, Kathleen Carroll<sup>2</sup>, David Knight<sup>3</sup>, Kirsty MacLellan<sup>4</sup>, Paula J Domann<sup>5</sup>, Cristina Legido-Quigley<sup>6</sup>, Lihua Huang<sup>7</sup>, Lance Smallshaw<sup>8</sup>, Hamid Mirzaei<sup>9</sup>, James Shofstahl<sup>10</sup> & Norman W Paton<sup>11</sup>

<sup>1</sup>Department of Comparative Molecular Medicine, School of Veterinary Science, The University of Liverpool, Liverpool, UK.

<sup>2</sup>Manchester Centre for Integrative Systems Biology, Manchester Interdisciplinary Biocentre, University of Manchester, Manchester, UK. <sup>3</sup>Faculty of Life Sciences, University of Manchester, Oxford Road, Manchester, UK.

<sup>4</sup>National Institute for Biological Standards and

Control, Blanche Lane, South Mimms, UK. <sup>5</sup>LGC Ltd., Teddington, Middlesex, UK. <sup>6</sup>PSD, School of Biomedical and Health Sciences, King's College London, London, UK. <sup>7</sup>Bioproduct Research and Development, Lilly Research Laboratories, Lilly Technology Centre, Indianapolis, Indiana, USA. <sup>8</sup>Lilly UK, Speke, Liverpool, UK. <sup>9</sup>Institute for Systems Biology, Seattle, Washington, USA. <sup>10</sup>Thermo Fisher Scientific, Inc., San Jose, California, USA. <sup>11</sup>School of Computer Science, University of Manchester, Oxford Road, Manchester, UK. ([andrew.jones@liv.ac.uk](mailto:andrew.jones@liv.ac.uk)).

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# Guidelines for reporting the use of capillary electrophoresis in proteomics

## To the Editor:

We wish to announce the capillary electrophoresis module (MIAPE-CE) of the minimum information about a proteomics experiment (MIAPE) guidelines<sup>1</sup>, specifying the minimum information that should be provided when reporting the use of capillary electrophoresis in a proteomics experiment (**Box 1**). The MIAPE-CE module is the result of a coordinated effort by a consortium

of capillary electrophoresis researchers working in the proteomics field and constitutes an additional part of the MIAPE documentation system established by the Human Proteome Organisation's Proteomics Standards Initiative (HUPO-PSI; <http://www.psidev.info/>). MIAPE modules for mass spectrometry and gel electrophoresis have already been described in previous issues of *Nature Biotechnology*<sup>2-4</sup>.