

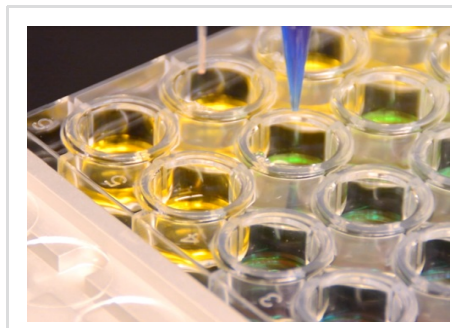


## Automatic Hanging Drop Optimization

*Dear Crystallographer*

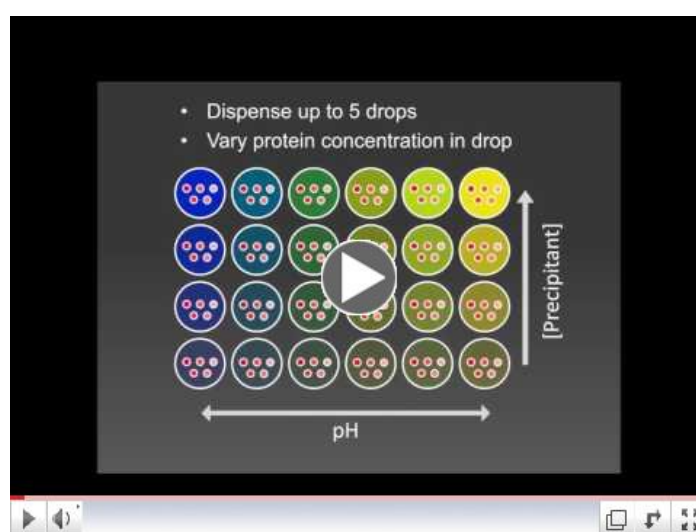
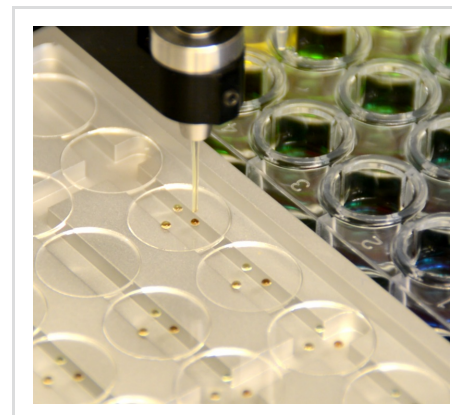
Did you know that you can dispense [24 well hanging drop](#) optimization experiments with an Oryx4 or Oryx8?

- Reservoir dispensing to any sitting drop or hanging drop plate for optimization.
- Dispense up to 3 ingredients to the drops and reservoir with [Oryx4](#) using the new 'simple gradient' experiments.
- Dispense up to 7 ingredients to the drops and 6 ingredients to the reservoir with [Oryx8](#) using [XStep](#).
- Up to 5 drops per cover slide.



The robot uses a disposable 1 mL tip to dispense most of the ingredients to the reservoir. The multi-channel microtip is used to dispense ingredients that require higher accuracy to the reservoir.

Once the reservoirs have been dispensed, the protein sample is loaded and the drops are dispensed. Please see the videos below for overviews of the new 'simple gradient' experiment and more complex optimization experiments with XStep:



24 Well Hanging Drop - Simple 2D Gradient Optimization for Oryx4 and Oryx8



Vapour diffusion gradient experiment with Oryx 8 using XStep

To request a quotation or demonstration please contact [Hilary@douglas.co.uk](mailto:Hilary@douglas.co.uk)

For product support contact [Stefan@douglas.co.uk](mailto:Stefan@douglas.co.uk)

For anything else please contact [Info@douglas.co.uk](mailto:Info@douglas.co.uk)

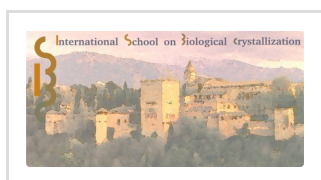
## Douglas Instruments will be at the following meetings:

Visit our booth and pick up a free microseeding toolkit! The kit contains everything you need to do an [MMS microseeding experiment](#), including a Hampton Research Seed Bead and Crystal Crusher.



[ACA 2017, New Orleans](#)

26th - 30th May 2017



[International School on Biological Crystallization, Granada, Spain](#)

29th May - 2nd June 2017



[Mid-Atlantic Macromolecular Crystallography Meeting, Baltimore, 2017](#)

7th - 9th June



[ECS4, 4th European Crystallography School, Warsaw, Poland](#)

2nd - 7th July 2017



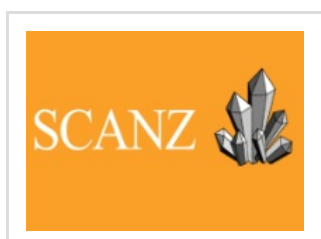
[IUCr 2017, Hyderabad, India](#)

August 21st - 28th 2017



[HEC 20, Wojanow, Poland](#)

28th -30th September 2017



[CRYSTAL 31, Bunker bay, Western Australia](#)

3rd - 7th December 2017

### Recent citations of Douglas Instruments products

[The structure of a calcium-dependent phosphoinositide-specific phospholipase C from Pseudomonas sp. 62186, the first from a Gram-negative bacterium](#)

O. V. Moroz, E. Blagova, A. A. Lebedev, A. Nørgaard, D. R. Segura, T. H. Blicher, J. Brask and K. S. Wilson

Acta Crystallographica Section D: Structural Biology 73.1 (2017): 32-44.

[Interdomain interactions rearrangements control the reaction steps of a thermostable DNA alkyltransferase](#)

Morrone C, Miggiano R, Serpe M, Massarotti A, Valenti A, del Monaco G, Rossi M, Rossi F, Rizzi M, Perugino G and Ciaramella M

Biochimica et Biophysica Acta (BBA)-General Subjects 1861.2 (2017): 86-96.

[Learning from oligosaccharide soaks of crystals of an AA13 lytic polysaccharide monooxygenase: crystal packing, ligand binding and active-site disorder](#)

K. E. H. Frandsen, J.-C. N. Poulsen, M. Tovborg, K. S. Johansen and L. Lo Leggio

Acta Crystallographica Section D: Structural Biology 73.1 (2017): 64-76.

