

## Celebrity cells

**Inspired by the visual spectacle cells offer under the microscope, some biologists have decided to put them on show.**

Our November editorial recommended a 'less is more' approach to presentations. However, on another level, there is a need to make basic cell biology more accessible and attractive to a broad audience. In a discipline based on the visualization of cellular and molecular phenomena, time-lapse analysis of living cells takes a central position. Recently, a cell-biology 'subculture' has emerged whose goal is to entertain as much as to inform.

Christian Sardet is one of the driving forces behind this movement. When not studying the early development of marine invertebrates at the Station Marine de Villefranche-sur-Mer, he encourages cell biologists to use multimedia tools to communicate their research. Last month, he received the EMBO prize in Science Communication in recognition of his efforts. Back in the late 1990s, Sardet was struck by the formality that reigned at conferences. In an attempt to liven things up, he introduced an event called 'Cinema of the Cell', which has been held at every ELSO meeting since 2001. Cell biologists are invited to produce a BioClip — a short multimedia film illustrating their research — using time-lapse sequences, images, animations and sound. A selection of entries is projected at the ELSO meeting in front of an audience of a thousand. The BioClips are subsequently deposited on an open-access website, which also hosts a collection of time-lapse sequences and animations from *Exploring the Living Cell*, an educational DVD produced by Sardet and Veronique Kleiner.

At the last ELSO meeting in September, most scientists seemed too busy preparing their talks and posters to submit entries and only three of six short films submitted were screened. One may ponder on the reasons for this lapse, after the enthusiasm of the first few years. The word at the conference bar was that the substantial amount of time required to produce a quality multimedia film of fewer than ten minutes could be put to better use in the laboratory. But surely this under-values the publicity and the satisfaction of having your work presented in front of thousands of people rather than the trickle that usually come to the posters? To encourage the artistic flow, shorter BioClips will be allowed and Sardet's tutorial on how to make a BioClip using PowerPoint, presented at the last ELSO meeting, may evolve into an EMBL workshop.

In parallel, the ASCB has also set up initiatives to promote the sharing of multimedia materials, both on its website and through a competition called 'CellDance'. Movies on CellDance are more straightforward than BioClips, which traditionally feature an over-laid, non-scientific story and often incorporate entertaining references to movie or music classics. Instead, CellDance movies often feature a

single, striking time-lapse sequence or computer animation with a live explanation by the author. Movies are uploaded onto the ASCB Image and Video Library (IVL), which also contains a wide range of peer-reviewed images curated by an editorial board chaired by Katherine Howel. These movies are perhaps not quite as entertaining as the acclaimed 'Twisted Sisters' BioClip by Alex McDougall and colleagues (CNRS, Villefranche-sur-Mer, France), in which chromosome segregation is accompanied by the Jacques Brel song '*Ne me quitte pas*', but they are certainly useful for enlivening lectures or talks. On the other hand, ASCB provides exquisite entertainment through the CellSlam initiative hosted by Randy Hampton, a stand-up comedian turned cell biologist at the University of California, San Diego. For CellSlam, scientists deliver a judged three-minute show to a sell-out audience. Even if these initiatives were originally aimed at sharing research with a more general public, cell biologists are also eager to see their research presented in an imaginative manner and to witness their colleagues' artistic moments in the limelight.

Making movies used to be the privilege of a lucky few working on easily visualized and dynamic processes. However, modern imaging and analysis tools have allowed successful rendering of even highly complex three-dimensional events. Computer animations are now all the rage with molecular and structural biologists, who like to illustrate their take on an enzyme reaction mechanism. Despite being based on structural data, the new wave of 'Molecular Movies' are all too often largely fictional so are they merely slick presentation gimmicks or do they provide useful information about cellular processes? Sardet's view is that the process of designing and observing these movies will inspire new ideas and hypotheses. In any event, the nature of cell-biology research is such that its practitioners often prefer a visual approach, and well-designed animations do make complex concepts more accessible.

One — albeit more mundane — area where movies could certainly be useful for every day research is in the sharing of complex protocols. Since its launch last December, the *Journal of Visualized Experiments* (JoVE), an online title dedicated to the publication of movies illustrating protocols in life sciences, has published one hundred and fifty movies; *Nature Protocols* also has movies attached to some of their protocols. Further to the help these initiatives may provide for performing a technically challenging experiment, Matias Pasquali recently noted in *EMBO Reports* that protocol movies published alongside papers could also in principle be used to enhance the peer-review process.

Next year, there will be two opportunities to participate in 'Cinema of the Cell' festivals, one at the annual ELSO/EMBO meeting in Nice, France, and one at the 9th meeting of the International Federation of Cell Biology in Seoul, Korea. Why not spend some of those late-night confocal sessions in the director's chair and contribute!

Further reading on <http://connotea.org/user/ncb/tag/BioClip%20CellDance>