



DNA interactive DVD

Dolan DNA Learning Center, 2003
Cold Spring Harbor Laboratory Press, New York
ISBN: 0 9710588 1. NTSC version, unencoded

Review by Dean Madden

This BAFTA-award-winning yet inexpensive educational DVD contains numerous short interviews with scientists, many of them Nobel laureates, who have played a key role or continue to work principally in human molecular biology. There are also computer animations showing key techniques and processes. To facilitate use of the material the clips are grouped in several ways e.g., by theme or by interviewee. The material is aimed mostly at 16-19 year-old biology students. Many, if not most of the clips, have been culled from a four-part Channel 4/PBS television series produced to coincide with the 50th anniversary of the discovery of the DNA double helix. (The series of four 50-minute programmes, 'DNA - The secret of life' -- is available on two DVDs from the production company, Windfall Films Ltd: <http://www.windfallfilms.com/dnadvd/index.html>)

The most spectacular and impressive sequences are undoubtedly the molecular animations showing DNA replication and protein synthesis. These were created by Drew Berry at the Walter and Eliza Hall Institute in Australia. Coupled with the ability to choose the level of sophistication of the accompanying spoken commentary, these superb clips form an extremely useful addition to teaching resources for post-16 students. (The clips, without labelling and commentary, can be viewed at: <http://www.wehi.edu.au/education/wehi-tv/dna/index.html>)

Other animations taken from the television series vary in quality and some, such as that showing simple DNA replication are clearly intended for a different, general audience (indeed, the voiceover indicates the DVD-makers' recognition of the replication clip's shortcomings -- the DNA molecules consist simply of bases with no sugar-phosphate backbones). Some of the other explanations are disappointing, such as that of DNA microarrays which really leaves the viewer none-the-wiser (see Davidson's College's wonderfully entertaining Flash animation if you wish to understand this technology better <http://www.bio.davidson.edu/courses/genomics/chip/chip.html>).

The principal feature of the 'DNA interactive' DVD is its interviews with scientists who were and are at the forefront of molecular genetics. Where else could you find Francis Crick, Jim Watson, Maurice Wilkins, François Jacob, Benno Müller-Hill, Sydney Brenner, Paul Berg, Wally Gilbert, Herb Boyer, Stanley Cohen, Kary Mullis, Alex Jeffreys, Svante Pääbo and the other creators of

molecular genetics talking about their work? (It is rather a shame that the DVD was not produced five or ten years ago, before several of the pioneers of molecular biology had died.)

Be warned that many of the DVD's 200 clips are little more than short 'soundbites', and that to be used effectively in an educational context, they would require supporting materials. Fortunately, the producers have realised this and there is also an associated free-to-access Web site at the Dolan DNA Learning Center which presents a great deal of additional, valuable educational material: www.dnai.org (registration required to access teachers' resources).

The 'DNA interactive' project was funded by the Howard Hughes Medical Institute. The 'DNA interactive' DVD may be ordered direct from the Cold Spring Harbor Laboratory Press Web site: www.cshlpress.com

For more details see:

<http://www.ncbe.reading.ac.uk/DNA50/interactivepal.html>

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