# **E-LEARNING CLOSER TO YOUR NEEDS**

IBMS Fellow, chartered scientist and laboratory manager **Dan Pelling** gives an update on interactive, electronic educational programmes developed for biomedical scientists and other health and science professionals across the globe.

> onceived and implemented by some of the most eminent minds in the field, the e-HEMATimage, e-PARASITimage, e-BACTERimage and e-MYCOimage CPD programmes are the four

education, training and development projects delivered via the platform of the pan-European, multilingual e-MEDICINimage programme. The current programmes, which focus on haematology morphology, parasitology, bacteriology and mycology, respectively, were funded by the European Commission's Lifelong Learning and Vocational training scheme, through the Leonardo Da Vinci Project.

The success of the learning ventures that the Leonardo Da Vinci project launched, projects such as e-MEDICINimage, has meant that they have become selfsustaining and continue to deliver world-class e-learning opportunities with a highly regarded provenance.

### Use of e-learning

Although e-MEDICINimage has been supporting education and learning for almost 15 years, 2017 saw the programme make its debut at IBMS Congress, during which time we had much interest from delegates enquiring as to how it could be used to support general CPD, locally implemented training and competence assessment tools.

Subscription fees, methods of monitoring participation and ways in which evidence of knowledge and skill development can be gathered were also hot topics and we took these questions back to our council meeting.

The outcome of the meeting, where expert leads from the partner nations gather to discuss issues and relevant educational strategy, was that 2018 saw new modules developed to cover other areas of pathology, the fees structure was re-organised, and

new functions were incorporated to allow local feedback and support and improved experiences for our participants.

Contrary to popular belief, researchbased educational theory has demonstrated that e-learning and digital platforms do not in themselves directly improve learning - there is no robust evidence that supports otherwise. What the digital revolution has done is greatly improve the educational environment through which teaching and training are delivered and it is these novel and integrative ways of delivery that have seen a generational change in learning and development. Continuing to be a

leading player in this evolving field of delivering education is one of the central goals of e-MEDICINimage.

### Interactive programme

e-MEDICINimage continues to provide a case-study-based

interactive programme focussing on the morphology and imagery of pathology disciplines. There are 10 haematology cases, six parasitology cases, six mycology cases and four to six bacteriology cases released per year.

Interaction with the cases is through a web-based graphical user interface, which is both intuitive and also available in multiple languages so as to allow the participant to understand the nuances of pathology on their own language although as the newest addition to our repertoire, bacteriology is only available in French and English at this time.

Personalised feedback in each language from experts recognised in the field is provided which enhances the learning effectiveness and allows further discussion and exploration of relevant pathologies. Access to your archived cases and

discussions and the facility to print your cases and compare your performance against your peers provides a repository of <sup>≦</sup> objective evidence of competence and CPD.

## laboratory skills is feeling an increasing pressure to conform with and align to

such as ISO 15189. With competence assessment and accreditation status taking some of the central roles in compliance and transparency, e-MEDICINimage becomes an ideal CPD opportunity, or competence assessment tool, if so wished. It is an educational tool that is suitable for all; whether the individual is just embarking upon a career in pathology, is more experienced and providing diagnostic reports, or is advanced in their career and seeking new challenges.

# **Continuing great experience**

I have been the e-MEDICINimage lead tutor for haematology in the English language stream, and one of the strategies and content developers, since



# "Digital pathology and artificial intelligence are driving a change in how we learn"

its inception. With learning, development and CPD changing and evolving, I have always held UK and wider international needs for medical laboratory science in mind at the pan-European council meetings when discussing how the programme develops.

Digital pathology and the application of artificial intelligence algorithms to diagnostic pathways and morphologyfocussed classification techniques are driving a change in how we learn, how we train, and how we enhance or exchange some traditional abilities with more modern and forward-thinking skills.

Feedback from users, has helped drive us forward through 2018, into 2019 and beyond. From personal experience, the e-MEDICINimage programme helps develop workforce competence and confidence in haematology, parasitology and mycology morphology, and has just begun its journey in doing so in bacteriology too.

With the ISO changes and inspection criteria that are being implemented across many countries, it may also provide a solution to any compliance gap analyses (although this would have to be decided by local management).

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For information on registration fees, processes and for demonstrations of the system in a number of languages please visit: e-medicinimage.eu

## **Complying worth standards**

Today, development of knowledge and standards whether they be locally agreed or, an interpretation of ISO standards,