It is with great pleasure that I introduce this special issue of Microbiology Australia with its focus on the work currently being performed around Australia to help our microbiology graduates develop the skills and attributes required to become career ready and to secure employment. Preparing students for employment is a multi-faceted challenge. Modern education moves beyond classroom or online instruction to working with industry to provide student learning opportunities, as well as mentoring our students to engage in experiences that will expand their outlook and capabilities. This multi-faceted approach is important to give our students the best preparation for entering the new workforce, where innovation and creativity is key.

In this issue of Microbiology Australia Smith et al. look at the downward employment trends for life sciences, which is a sobering reminder of the many challenges to be faced by our life science graduates. Hidden in the data is the number of graduates that feel they are ‘underemployed’ – employed in jobs not related to their undergraduate degrees. What needs to be conveyed more clearly to students is that a science degree can prepare them for a wide range of jobs. Thus a science degree should encompass a wide range of learning opportunities, not just in skill and knowledge development but also in general skills and emotional intelligence. The article following this by Grando et al. looks at what employers and students are saying with respect to the skills and attributes that they need. The employer data was collected through a breakfast meeting held at a university, with the widespread support for the meeting showing us how willing employers are to engage with academia.

How work ready are university graduates? If you are an employer or if you are a university academic, your response to this question may vary. The Office of the Chief Scientist is looking closely at the issue of STEM-trained and job-ready graduates and opens their argument for creating job-ready graduates by stating ‘Australia is looking to universities to re-imagine what science education should be, and re-engineer for a future in which science is central’. To this end, members of the Education Special Interest Group (EdSIG) came together at last year’s ASM Educators Conference – EduCon, to convene a working party to draft threshold learning outcomes for majors in microbiology. These guidelines have received the support of the national executive of ASM and are published in this issue. It is EdSIG’s intention to create a resource within the ASM website that links learning outcomes to examples of curricula that can support learning. This issue of Microbiology Australia also has provided a valuable platform for microbiology educators to describe the excellent work they are doing to help students attain great learning outcomes.

I read with interest that FEMS Microbiology Letters now devotes a section of their journal to career development learning. For those readers wishing to see what the UK is doing to enhance employability, Fahnert has written an excellent review. The journal Nature has also for some time devoted a section of its journal to career development. Discussions with the editor of Microbiology Australia, Ian Macreadie, have led me to believe that it is possible to have a regular section devoted to Education and Careers in MA. This presents an excellent opportunity for networking of educators and industry to explore initiatives and report on outcomes. I wish to thank all the contributors to this current issue of Microbiology Australia. This issue would not be possible without their dedication and commitment.

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I look forward to reading more examples of good practice in future issues of Microbiology Australia.

References

Biography
Danilla Grando is an Associate Professor in the School of Science. Her teaching interests are online education and program delivery to enhance employability. Her research interests are diagnostic microbiology.