

TECH-2-TECH

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This section offers readers the opportunity to submit informal contributions about any aspects of Animal Technology. Comments, observations, descriptions of new or refined techniques, new products or equipment, old products or equipment adapted to new use, any subject that may be useful to technicians in other institutions. Submissions can be presented as technical notes and do not need to be structured. They can be as short or as long as is necessary. Accompanying illustrations and/or photos should be high resolution.

NB. Descriptions of new products or equipment submitted by manufacturers are welcome but should be a factual account of the product. However the Editorial Board gives no warranty as to the accuracy or fitness for purpose of the product.

Biosecurity technicians: the product of facility evolution

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Abstract

This article explores the transformation of the cagewash technician's role within animal research facilities over the last 30 years. Once considered auxiliary support, the position has evolved into a highly skilled integral part of facility biosecurity. At King's College London, we acknowledge this transition by naming it a 'biosecurity technician' a role which includes the more advanced work of operating equipment, following the most stringent biosecurity protocols and the provision of training and support to the wider facility team. This paper provides an overview of historical and current expectations and the future direction of the role within a modern research setting.

Introduction

Technicians working in cagewash areas have historically been under-appreciated. This is despite their critical role in maintaining standards of hygiene, biosecurity and Animal Welfare. Gradually over time the infrastructure, facility and research requirements are becoming more complex. This has led to new thoughts on the role of the cagewash technician, abilities and professional identity. We have seen and recorded this development and have implemented new measures to mirror this evolution.

From auxiliary to essential: a timeline of change

As illustrated in Figure 1, the role of the cagewash technician has evolved significantly over the past 30 years, from performing basic cleaning tasks during the 1990s to becoming today's biosecurity technician.

Facility investment to match role evolution

Changes to technician duties have been mirrored by upgrades in the infrastructure. Our cagewash areas now feature:

- high-efficiency automated washers
- clean/dirty operational zoning

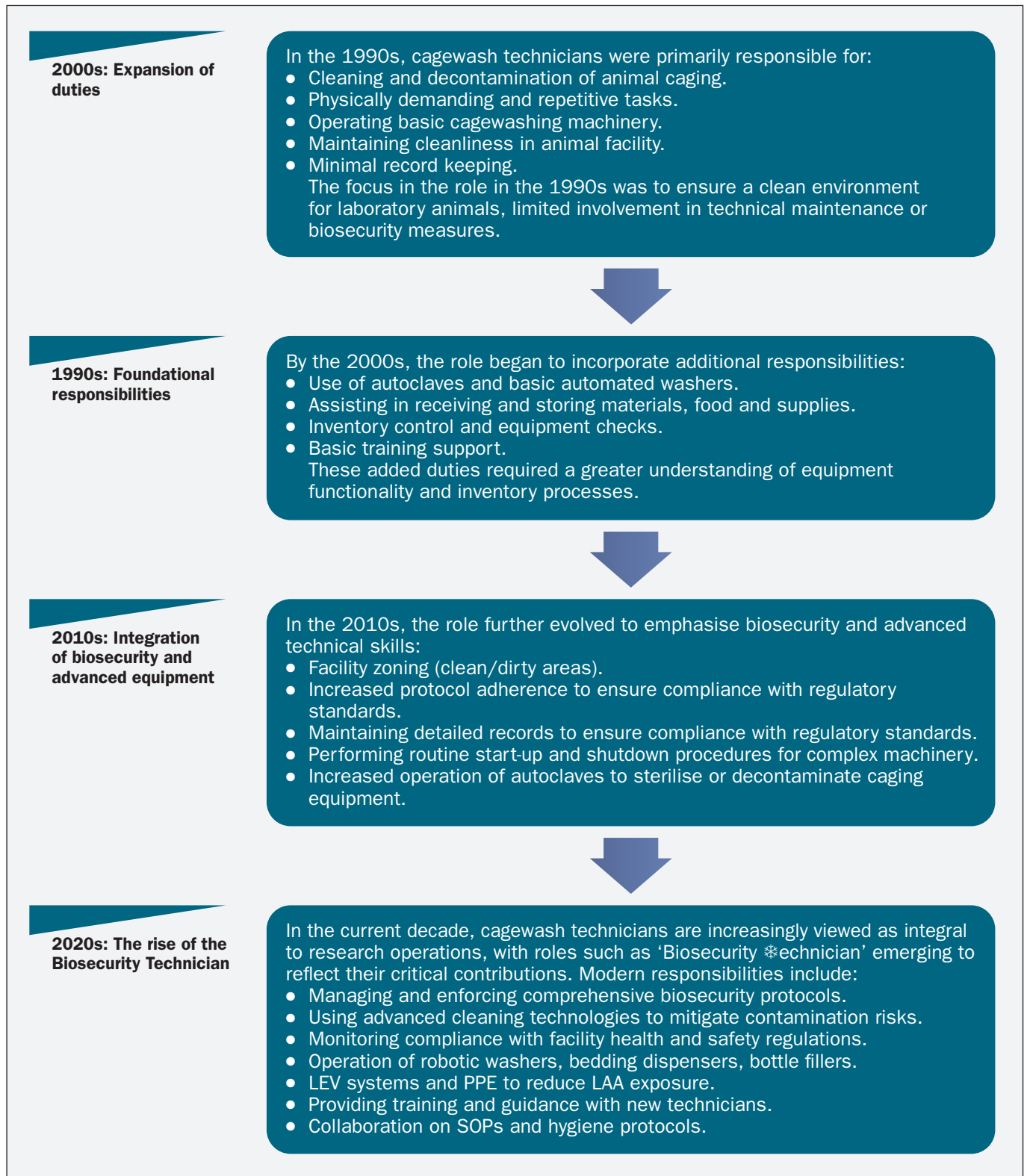


Figure 1. From auxiliary to essential: a timeline of change.

- automated bedding and waste systems
- ergonomic designs to reduce physical strain
- local Exhaust Ventilation (LEV) systems
- smart monitoring systems for compliance and energy use

Figure 2 presents example images of the some of the above bullet points.

Impact on workforce identity and development

Renaming the role to biosecurity technician has reinforced its technical and professional scope, encouraged pride in the work and clarified its essential contribution to facility biosecurity and Animal Welfare. At King’s College London, a significant shift was implemented during 2024 to better reflect this identity. The title technical auxiliary was changed to trainee biosecurity technician and a new biosecurity technician role was created at a higher grade to offer structured progression. The revised job description for trainee biosecurity technicians allowed for broader facility exposure while a formal progression pathway that was developed in partnership with HR enabled qualified staff to advance into the technician role.

These initiatives have contributed to professionalising the role, hopefully improving staff retention and ensuring that team members feel valued and supported. This approach aligns with the broader understanding of Culture of Care in laboratory animal facilities which emphasises the importance of supporting those who care for animals as a central component of ethical research practice.¹ Figure 3 is testimonials from trainee biosecurity technicians at King’s College London.



Figure 3.



Figure 2. AI generated images of examples of facility investment upgrades.

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The change in our job title from Auxiliary Technician to Trainee Biosecurity Technician goes far beyond a simple name change. We now have a defined and dedicated career path for those known in day-to-day operations as cagewashers. This means we no longer face the pressure or concern of having to become Animal Technicians in order to progress in our careers. At last, we have our own professional path ahead of us, allowing us to focus on an area that is essential to the facilities: supporting biosecurity. Our role is fundamental in assisting both Animal Technicians and scientists, ensuring compliance with protocols and promoting a clear understanding of the clean and dirty sides of the facility. We are here to provide guidance, clarification and support, helping to ensure that everyone operates in a compliant manner and maintains the highest standards of biosecurity.

– Raquel De Lima Correia da Silva

“

I agree that ‘Biosecurity Technician’ sounds appropriate and clear, where I’ll be more than happy to tell those who ask for my job title.

– Ivette Jauad Pinto

“

When I was the Senior Auxiliary Technician running the cage wash at NHH, it felt like we were viewed as staff that were only capable of working in the cagewash doing the dirty work. But when we received news of the title change to Biosecurity Technician, it boosted morale, my co-workers were more upbeat, more confident and proud of what we do. We felt like part of the team, not just behind-the-scenes helpers. That small change made a big difference.

– Aaron Kennyford

Conclusion future evolution of the biosecurity technician role

We believe that the transition from auxiliary to biosecurity technician has highlighted the importance of this role within the research infrastructure of our facilities and we expect it to continue evolving.

With greater reliance on advanced automated systems and robotics, technicians will likely require extensive technical training and certification in equipment operation, diagnostics and maintenance.

As the biosecurity technician role develops as we expect, experienced biosecurity technicians will progress into senior leadership positions and play a significant role in shaping standard operating procedures, organisational policies and training.

Reference

- ¹ **Annabella Williams** (2023). Caring for those who care: towards a more expansive understanding of ‘Culture of Care’ in laboratory animal facilities, *Social & Cultural Geography*, 24:1, 31-48.

Figure 3.