



INDUSTRY INNOVATIONS

Where Product Innovation Meets Best Practice

UV DISINFECTION

Industry Innovations is now accepting whitepapers and case studies for volume 1:2 showcasing innovative technologies related to UV Disinfection!

Ultraviolet germicidal irradiation solutions in their various forms have withstood the test of time as an enticing possibility to enhance germicidal disinfection beyond manual cleaning in healthcare settings. In fact, demonstration of short-wavelength ultraviolet light causing the inactivation of microorganisms by destroying nucleic acids has been documented in scientific literature as early as 1878 – two years before Koch’s germ theory of disease reached widespread acceptance in the medical field; and in the same decade as Lister’s pioneering research in antiseptics (my apologies to readers who were able to avoid late-1800s epidemiological history until now). I can imagine it was not long afterward before someone considered the possibilities of UV disinfection to reduce transmission of microorganisms from surfaces in healthcare settings!

In the present millennium, adoption of commercial UV disinfection technology by Canadian healthcare facilities has been hesitant. Notable barriers to adoption include the perceived substantial coordination involved in implementation and upkeep of systems, and disappointment from cost-conscious decision makers expecting their investment in UV technology to reduce or replace manual cleaning. UV disinfection’s slow entry into Canadian healthcare markets has not deterred the rapid maturation of UV disinfection technology’s presence in clinical research studies over the last decade. Nor has it stemmed the recent influx of innovative UV technologies with diverse use cases entering the North American market.

The whitepaper guidelines for volume 1:2 have been drafted with the goal of illuminating the features, processes, and work burden of UV disinfection system implementation. I am excited to see for myself in the next batch of whitepapers how industry partnerships and UV disinfection technology can assist IPAC in ensuring facility sanitation practices are sufficient to combat the increasing resiliency of pathogenic contaminants and new nightmares like persistent contamination of *Candida auris*. It is time for those of us interested in enhancing our environmental microorganism controls to revisit this 141-year-old technology to marvel at its progress and critically assess its modern day potential in our operations.

Industry Innovations 1:2 UV Disinfection will be published in December 2019.

I would again like to thank everyone who took the time to open up *Industry Innovations* volume 1:1 and to our great industry partners for showcasing a sampling of industry partnership opportunities assisting automated surveillance of hand hygiene compliance. Inquiries, comments, and future suggestions to develop the *Industry Innovations* platform are welcomed by all.

Case studies and experiences related to UV disinfection technology integration submitted by IPAC Canada members are welcomed for inclusion in the winter issue of *Industry Innovations*. As well, **if you or your department have independently developed or collaboratively implemented any technology-enhanced solution to an infection prevention and control need in your facility, *Industry Innovations* wants to hear about it!** Please contact me with a brief overview and I will be happy to walk you through the various avenues in which IPAC Canada can showcase your work.

Whether embracing the outdoors this summer or catching brief glimpses of sunlight through an office/hospital window, I hope everyone enjoys their time before we enter what looks like a challenging incoming flu season.

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UV Disinfection submission guidelines

The role of the Editor, *Industry Innovations* is to ensure this publication is a high quality, structured, and comparative resource for Infection Prevention and Control Canada's (IPAC Canada) core membership. All submissions to *Industry Innovations* are subject to curatorial review. Relevance to IPAC Canada membership and integrity of claims will be assessed prior to approval or denial of publication partnership. For whitepapers accepted for publication, the editor will coordinate with the submitting industry partner prior to publication with applicable technical editing requests. The editor and publisher will ensure that the curation and publishing process of whitepapers and advertisements accepted for publication are managed transparently in consultation with authoring industry partners.

Preferred whitepapers for publication in *Industry Innovations* will refrain from subjective and unverifiable claims. They will use a mixture of industry voice, technical specification, and use-case logistics with significant attention to the immediate organizational impact of implementation. The numbered guideline sections below are sequentially ordered to provide a comparable reading flow throughout *Industry Innovations* volumes and must be adhered to during whitepaper development. The suggested word count is included for the whitepaper author's reference to ensure sufficient content is incorporated into each section without exceeding the suggested submission length of 4500 words.



General guidelines:

- Core Focus: *Industry Innovations'* guidelines are structured to provide a comparable summary of considerations to enable IPAC Canada readership to assess their organization's implementation readiness and the immediate use cases of an industry product
- Please refrain from comparing your product's solution to competing solutions
- Where clinical or industry research is referenced; ensure summary description of the research is included rather than generalizations
- For in-text citations, use parenthetical numbers (Vancouver style) and append references to end of whitepaper using the same order of numbers appearing in-text

Whitepaper guidelines:

1. Abstract – ~500 Words:

- What makes your product stand out as an innovative solution to UV disinfection in healthcare facilities?

2. Specifications – ~700 Words:

- Describe the integrated technologies in your solution to **UV Disinfection**
- Provide an overview of the type of ultraviolet light used in your UV Disinfection solution
- Provide an overview of technology features associated with your UV Disinfection Solution
 - If any automated sensor technology and/or manual calibration will be utilized to ensure appropriate coverage of UV disinfection, please explain the mechanism behind this feature
 - If any technology-enhanced solutions to known UV disinfection barriers are applicable to your product please describe the technology integrated into your product that contributes to mitigation of these known barriers (e.g., line-of-site exposure/shadowing, biofilms, healthcare facility cooling systems, etc...)
- Describe any additional technologies located at a healthcare facility that are used peripherally to your product's solution (e.g., on-site electrical power consumption and information technology requirements if applicable)

3. Metrics – ~600 Words:

- Describe relevant quantitative research on bioburden reduction and germicidal effectivity against common healthcare pathogens (e.g., MRSA, VRE, C. Difficile, Candida Auris) offered by your UV disinfection solution
- Describe the research methods and controls utilized to demonstrate effectivity
 - If a reduction in healthcare acquired infections has been demonstrated through case study use of your UV disinfection solution, describe the healthcare setting/patient population in which the study was conducted
- Describe and explain the UV dose and contact time required for optimal UV disinfection in a typical use case of your UV disinfection solution
- Describe known barriers to optimal disinfection that may contribute to suboptimal disinfection results (e.g. line-of-site exposure/shadowing, biofilms)

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4. **Practice changes** – ~600 Words:

- Please describe the frontline practice changes involved in implementing your company's solution (not the pathogen reduction of UV Disinfection described in the previous section).
- Is your UV disinfection solution fixed/integrated into the hospital infrastructure or mobile?
- Is the protocol for use of your UV disinfection technology episodic or continuous?
- If your UV disinfection solution provides episodic room-level disinfection capability, does the room need to be vacant while the UV disinfection occurs?
 - If yes, what is the turnover time including setup/takedown (if applicable) for room scale UV disinfection?
- What is the work and time allotment required to facilitate the UV disinfection process?
- Is there an occupational health risk of overexposure to UV radiation?
- Will environmental service workers be able to reduce their standard daily cleaning practices post-implementation of your company's UV disinfection solution while maintaining facility standards of disinfection?
- Please include a picture alongside a description of the format or user interface (if applicable) depicting how end users interact with the UV disinfection technology

5. **Implementation** – ~600 Words:

- Please describe the steps involved in implementation of your UV Disinfection solution.
- Which stakeholders are needed from a healthcare facility to facilitate implementation (e.g. Healthcare I.T., Facilities/Maintenance, Environmental Services, Infection Control, etc...)?
- What maintenance steps are required to ensure your UV disinfection technology is providing high quality environmental/product disinfection on an ongoing basis (e.g. lamp life)?
- Describe known facility/infrastructure barriers to optimal UV disinfection that may contribute to variable disinfection results and how a healthcare facility can facilitate installation of your UV disinfection solution to ensure the highest yield disinfection results
- What activities involved in initial implementation/ongoing maintenance of your UV disinfection solution will be managed by your company?
- What initial/ongoing maintenance steps of your UV disinfection solution will be managed by the healthcare facility?

6. **Narrative** – ~600 words:

- Please provide in narrative format the post-implementation use-case of your product including a description of the timing/process of UV Disinfection.
 - Please refrain from advisement of strategies for staff/patient management or specific chemical disinfection cleaning practices of environmental services (hospital specific policies); focus on the immediate use of your product and the steps that healthcare facility staff need to facilitate to ensure optimal disinfection

7. **Cost estimate** – ~300 words:

- Please outline your cost estimation process for facilities interested in implementing your UV Disinfection solution given typical needs in an acute care setting and a long-term care setting.

- **8. Contact info** – Please provide detailed contact info (phone, email, webpage, etc.) to ensure interested readers are able to reach out for further information and estimates.

Booking Deadline: September 13

Whitepapers and Ads to be booked directly by Al Whalen,
Industry Innovations Sales Manager
E: awhalen@kelman.ca | P: 866-985-9782

Submission Deadline: September 27

Send to Madison Moon,
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