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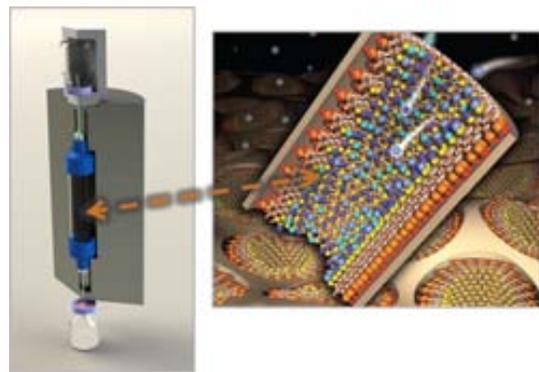
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Available Technologies

# Method and System for Radioisotope Generation

## SUMMARY

Physicians use radioisotopes in diagnostic and therapeutic nuclear medicine to save lives. Researchers at Pacific Northwest National Laboratory (PNNL) have developed a new method and system for generating a variety of radioisotope daughter products from their parents. The technology utilizes proprietary metal-specific sorbents and methods to optimize parent loading on the sorbents while allowing selective elution and concentration of daughter products. For example, it has been demonstrated that certain ion exchange sorbent(s) and loading, generation, and elution conditions provide for molybdenum (Mo-99) column loading and technetium (Tc-99m) elution. When fully developed, an advantage of the technology will be the use of Mo-99 with lower specific activity than what is currently used in conventional practice.



## ADVANTAGES

- \* The technology provides a versatile and customizable generator platform and method for numerous parent-daughter radioisotope systems.
- \* When fully developed, the technology may provide significant cost advantages, for example, over traditional fission-product Mo-99/Tc-99m production methods.

## RELATED LINKS

### » PNNL Radioisotopes Program

Information about Pacific Northwest National Laboratory's Radioisotope Program

<http://radioisotopes.pnl.gov/>

### Patents & Intellectual Property

» Patent #: 8781055B2

### Technology Portfolio(s)

» Radiochemical Processing

### Potential Industry Applications

» Healthcare, Pharma, Biotech & Medical

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**Dave L. Greenslade**  
Pacific Northwest National Laboratory  
(509) 375-6555  
david.greenslade@pnnl.gov  
<http://availabletechnologies.pnnl.gov>



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