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Authors: Nádia S.V. Capanema, Alexandra A.P. Mansur, Sandhra M. Carvalho, Isadora C. Carvalho, Poliane Chagas, Luiz Carlos A. de Oliveira, Herman S. Mansur



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# Bioengineered Carboxymethyl Cellulose-Doxorubicin Prodrug Hydrogels for Topical Chemotherapy of Melanoma Skin Cancer

Nádia S. V. Capanema<sup>1</sup>, Alexandra A. P. Mansur<sup>1</sup>, Sandhra M. Carvalho<sup>1</sup>, Isadora C. Carvalho<sup>1</sup>,  
Poliane Chagas<sup>2</sup>, Luiz Carlos A. de Oliveira<sup>2</sup>, Herman S. Mansur<sup>1\*</sup>

<sup>1</sup>*Center of Nanoscience, Nanotechnology and Innovation - CeNano<sup>2</sup>I, Department of Metallurgical and Materials Engineering, Federal University of Minas Gerais/UFMG, Brazil.*

<sup>2</sup>*Department of Chemistry-ICEX, Federal University of Minas Gerais/UFMG, Brazil.*

NSVC: [nsvnadia@gmail.com](mailto:nsvnadia@gmail.com); AAPM: [alexandramansur.ufmg@gmail.com](mailto:alexandramansur.ufmg@gmail.com); SMC:  
[sandhra.carvalho@gmail.com](mailto:sandhra.carvalho@gmail.com); ICC: [isadora.cota@gmail.com](mailto:isadora.cota@gmail.com);  
PC: [polianechagas@gmail.com](mailto:polianechagas@gmail.com); LCAO: [luizoliveira@qui.ufmg.br](mailto:luizoliveira@qui.ufmg.br);  
HSM: [hmansur@demet.ufmg.br](mailto:hmansur@demet.ufmg.br)

\* Department of Metallurgical and Materials Engineering, Federal University of Minas Gerais, Av. Antônio Carlos, 6627– Escola de Engenharia, Bloco 2 – Sala 2233, 31.270-901, Belo Horizonte/MG, Brazil, Phone/FAX: +55 31 34091843; email: [hmansur@demet.ufmg.br](mailto:hmansur@demet.ufmg.br)

## Highlights

- Carboxymethylcellulose-doxorubicin bioconjugates (CMC-DOX) were synthesized. (75)
- CMC-DOX polymer-drug hydrogels were synthesized by crosslinking with citric acid. (80)
- Degree of substitution (DS) of CMC tuned the properties of the bioconjugate hydrogels. (85)
- CMC-DOX polymer-drug hydrogels modulated the kinetics of *in vitro* DOX release profile. (85)
- New CMC-DOX polymer-drug hydrogels were effective against skin melanoma cancer cells.

(84)

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