Correction to: Melanin biosynthesis in bacteria, regulation and production perspectives

María Elisa Pavan¹ · Nancy I. López^{1,2} · M. Julia Pettinari^{1,2}

Published online: 7 January 2020

© Springer-Verlag GmbH Germany, part of Springer Nature 2020

Correction to: Applied Microbiology and Biotechnology
<https://doi.org/10.1007/s00253-019-10245-y>

The original version of this article contains error for some of the authors corrections were not included during correction stage especially for Table 1.

The original article has been corrected.

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

The online version of the original article can be found at <https://doi.org/10.1007/s00253-019-10245-y>

✉ Nancy I. López
nan@qb.fcen.uba.ar

✉ M. Julia Pettinari
jul@qb.fcen.uba.ar

¹ Departamento de Química Biológica, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Buenos Aires, Argentina

² IQUBICEN-CONICET, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Buenos Aires, Argentina

Table 1 Studies focused on optimization of bacterial melanin production

Microorganism	Melanin yield g l ⁻¹	Melanin type	Tyr added	Metal ion added	Substrates	Time	Optimization	Reference
<i>Streptomyces kathirae</i>	28.8	DOPA melanin	Yes	Cu	Amylodextrine Yeast extract	2–5 days	Recombinant	Guo et al. 2015
<i>Streptomyces kathirae</i> SC-1	13.7	DOPA melanin	Yes	Cu	Amylodextrine Yeast extract	2–5 days	PBD CCD	Guo et al. 2014
<i>Pseudomonas</i> sp. WH001 55	7.6	nd	Yes	None	Starch Yeast extract	6 days	One-factor-at-a-time	Kiran et al. 2017
<i>Pseudomonas stutzeri</i> HMG-7	6.7	DOPA melanin	No	None	Nutrient broth in sea-water	3 days	One-factor-at-a-time	Ganesh Kumar et al. 2013
<i>Bacillus safensis</i>	7.2 6.9	nd	Yes No	None	Yeast extract Fruit waste extracts	24 h	TD	Tarangini and Mishra 2014
<i>Brevundimonas</i> sp. SGJ	6.8	DOPA melanin	Yes	Cu	Tryptone	54 h	CCD PBD BBD	Survase et al. 2013
<i>E. coli</i> expressing tyrosinase from <i>Rhizobium elii</i>	6	DOPA melanin	Yes	Cu	Glucose	30 h	Recombinant	Lagunas-Muñoz et al. 2006
<i>Streptomyces luitanus</i> DMZ-3	5.29	nd	Yes	Cu	Beef extract	6 days	One-factor-at-a-time One-factor-at-a-time CCD	Madhusudhan et al. 2014
<i>Streptomyces</i> sp. ZL-24	4.24	DOPA melanin	No	Ni Fe	Soy peptone	5 days	One-factor-at-a-time CCD	Wang et al. 2019
<i>Nocardopsis alba</i> MSA10	3.4	nd	Yes	nd	Sucrose	7 days	PBD BBD	Kiran et al. 2014
<i>E. coli</i> expressing tyrosinase from <i>Rhizobium elii</i>	3.22	DOPA melanin	No	Cu	Glucose	5 days	Recombinant, metabolic engineering	Chávez-Béjar et al. 2013
<i>Streptomyces glaucescens</i> NEAE-H	0.35	DOPA melanin	Yes	Fe	Protease peptone	6 days	PBD CCD	El-Naggar and El-Ewasy 2017
<i>E. coli</i> expressing Hpd from <i>Pseudomonas aeruginosa</i>	0.21	Homogenisate melanin	Yes	nd	Glucose Casamino acids	6 days	Recombinant One-factor-at-a-time	Bolognese et al. 2019
<i>Actinodloteichus</i> sp. MA-32	0.125	DOPA melanin	Yes	Fe Mg	Glycerol	7 days	One-factor-at-a-time PBD CCD	Manivasagan et al. 2013

PBD Plackett–Burman design, BBD Box–Behnken design, CCD central composite design, TD Taguchi design, nd not defined