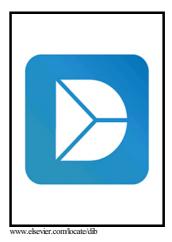
### Author's Accepted Manuscript

Chemical synthesis of lipophilic methylene blue analogues which increase mitochondrial biogenesis and frataxin levels

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#### **ACCEPTED MANUSCRIPT**

#### Data article

## Chemical synthesis of lipophilic methylene blue analogues which increase mitochondrial biogenesis and frataxin levels

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#### Abstract

As part of an ongoing program to develop potential therapeutic agents for the treatment of the neurodegenerative disease Friedreich's ataxia (FRDA), we have prepared a number of lipophilic methylene blue analogues. Some of these compounds significantly increase mitochondrial biogenesis and frataxin levels in cultured Friedreich' ataxia cells [1]. This data article describes the chemical synthesis and full physicochemical characterization of the new analogues.

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Subject area	Chemistry
More specific subject area	Lipophilic methylene blue analogues
Type of data	Synthetic schemes and methods, physicochemical characterization
How data was acquired	Chemical synthesis, NMR (Varian 400 MHz), mass spectrometry (JEOL
	LCMate LC-MS)
Data format	Analyzed
Experimental factors	Several lipophilic methylene blue analogues were prepared by chemical
	synthesis, starting from 2-cyanophenothiazine
Experimental features	N-protected 2-cyanophenothiazine was converted to the respective
	aldehyde, enabling introduction of the lipophilic substituents via a Wittig
	reaction and of the dialkylamines at positions 3 and 7 by treatment with
	the amines in the presence of iodine
Data source location	Biodesign Center for BioEnergetics and School of Molecular Sciences,
	Arizona State University, Phoenix, AZ
Data accessibility	State if data is with this article or in public repository. If public repository,
	please explicitly name repository and data identification number and
	provide a direct URL to data

**Specifications Table** [please fill in right-hand column of the table below]

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