

(tbc) Introduction to the COBRA Toolbox

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Reviewer(s):

INTRODUCTION

The purpose of this tutorial is to introduce a novice to the COBRA toolbox.

MATERIALS - EQUIPMENT SETUP

Please ensure that all the required dependencies (e.g. , `git` and `curl`) of The COBRA Toolbox have been properly installed by following the installation guide [here](#). Please ensure that the COBRA Toolbox has been initialised (`tutorial_initialize.mlx`) and verify that the pre-packaged LP and QP solvers are functional (`tutorial_verify.mlx`).

PROCEDURE

TROUBLESHOOTING

Please include TROUBLESHOOTING callouts after steps where problems are encountered. Include full details of the problem and solutions in a later Troubleshooting section.

TIMING

If possible, please include a timeline indicating the approximate time a step, or set of steps, will take e.g. Steps 1–3, 30 min.; Steps 6+7, 2 h. Provide this information as a summary at the end of the procedure, as a list. If you think it would be more user friendly you could refer to time needed for each section or detail what needs to be performed on each day of the protocol.

TROUBLESHOOTING

After key steps, include information on how to troubleshoot the most likely problems users will encounter with the tutorial. Ideally provide this information in the form ‘problem’, ‘possible reason’, ‘solution’.

ANTICIPATED RESULTS

Include information about, or examples of, the likely outcome to users, for example, likely solution to an optimisation problem, etc. Include example that works very well and a second for that requires troubleshooting to obtain meaningful results. If not described in detail in the introduction, this is a good place to include directions on how to interpret and analyze the computational results including equations if necessary.

Acknowledgments

Please note an acknowledgments section can be included.

REFERENCES

List all references mentioned in the protocol. References are numbered sequentially as they appear in the text, figure legends, tables and boxes. Use superscript numbers to indicate a reference, for example 1¹. Only one publication is given for each number, and footnotes are not used. Only papers that have been published or accepted by a named publication should be in the numbered list; meeting abstracts and papers in preparation should be mentioned in the text with a list of authors (or initials if any of the authors are co-authors of the present contribution). Patents should be included in the reference list. Published conference abstracts and URLs for web sites should be cited parenthetically in the text, not in the reference list; articles in formal, peer-reviewed online journals should be included in the reference list. Grant details and acknowledgments are not permitted as numbered references.

All authors should be included in reference lists unless there are more than five, in which case only the first author should be given, followed by 'et al.'. Authors should be listed last name first, followed by a comma and initials of given names. Titles of cited articles are required and should be in Roman text and titles of books in italics; the first word of the title is capitalized, the title written exactly as it appears in the work cited, ending with a period. Journal names are italicized and abbreviated (with periods) according to common usage; refer to the National Library of Medicine for details. Volume numbers appear in bold. For book citations, the publisher and city of publication are required (e.g. John Wiley & Sons, Hoboken, New Jersey, USA, 2003).

List all references mentioned in the protocol. Use the format given in the examples below:

3. Helms, C. et al. A putative RUNX1 binding site variant between SLC9A3R1 and RAT9 is associated with susceptibility to psoriasis. *Nat. Genet.* 35, 349-356 (2003).
4. Lovett, M. Direct selection of cDNAs with large genomic DNA clones. In *Molecular Cloning: A Laboratory Manual Edn. 3 Vol. 2* (eds. Sambrook., J. & Russell, D.W.) 11.98-11.133 (Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York, USA, 2001).
5. Petroff, M.D. & Stapelbroek, M.G. Blocked impurity band detectors. *US Patent 4,586,960* filed 23 Oct. 1980, and issued 4 Feb. 1986.