Bios8060E\_Project

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## Project Overview

### Transcriptomic profile differences in atopic dermatitis (AD) canid house dust mite (HDM) models when considering using multifactorial differential expression for sensitization of model dogs

Plan: Perform differential expression (DE) of previous data from an AD canine model paper in both a multifactoral DE that mimics the original paper (using R open source versus proprietary software of the paper) and in a classic one factor DE without considering an the additional factor of previous canine sensitization to the HDM model. I would like to see how immunological genes that are significantly up or down-regulated change between the two DE evaluations.

## Project Data

Samples from a previously published paper by [Schamber et al. (2014)](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4199687/) will be used for this project

## Sample Source Information

1. N\_2847\_24h\_S Organism: Canis lupus familiaris Source name: skin\_treated\_saline\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411196/> Sample Accession: GSM1411196 ID: 301411196
2. N\_2847\_24h\_A Organism: Canis lupus familiaris Source name: skin\_treated\_allergen\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411195/> Sample Accession: GSM1411195 ID: 301411195
3. N\_2845\_24h\_S Organism: Canis lupus familiaris Source name: skin\_treated\_saline\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411191/> Sample Accession: GSM1411191 ID: 301411191
4. N\_2845\_24h\_A Organism: Canis lupus familiaris Source name: skin\_treated\_allergen\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411190/> Sample Accession: GSM1411190 ID: 301411190
5. N\_2845\_0h Organism: Canis lupus familiaris Source name: skin\_untreated\_0h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411187/> Sample Accession: GSM1411187 ID: 301411187
6. N\_2802\_24h\_S Organism: Canis lupus familiaris Source name: skin\_treated\_saline\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411186/> Sample Accession: GSM1411186 ID: 301411186
7. N\_2802\_24h\_A Organism: Canis lupus familiaris Source name: skin\_treated\_allergen\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411185/> Sample Accession: GSM1411185 ID: 301411185
8. N\_2802\_0h Organism: Canis lupus familiaris Source name: skin\_untreated\_0h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411182/> Sample Accession: GSM1411182 ID: 301411182
9. N\_2800\_24h\_S Organism: Canis lupus familiaris Source name: skin\_treated\_saline\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411181/> Sample Accession: GSM1411181 ID: 301411181
10. N\_2800\_24h\_A Organism: Canis lupus familiaris Source name: skin\_treated\_allergen\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411180/> Sample Accession: GSM1411180 ID: 301411180
11. N\_2847\_0h Organism: Canis lupus familiaris Source name: skin\_untreated\_0h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411192/> Sample Accession: GSM1411192 ID: 301411192
12. N\_2800\_0h Organism: Canis lupus familiaris Source name: skin\_untreated\_0h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411177/> Sample Accession: GSM1411177 ID: 301411177
13. N\_2716\_24h\_S Organism: Canis lupus familiaris Source name: skin\_treated\_saline\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411176/> Sample Accession: GSM1411176 ID: 301411176
14. N\_2716\_24h\_A Organism: Canis lupus familiaris Source name: skin\_treated\_allergen\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411175/> Sample Accession: GSM1411175 ID: 301411175
15. N\_2716\_0h Organism: Canis lupus familiaris Source name: skin\_untreated\_0h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411172/> Sample Accession: GSM1411172 ID: 301411172
16. N\_2704\_24h\_S Organism: Canis lupus familiaris Source name: skin\_treated\_saline\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411171/> Sample Accession: GSM1411171 ID: 301411171
17. N\_2704\_24h\_A Organism: Canis lupus familiaris Source name: skin\_treated\_allergen\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411170/> Sample Accession: GSM1411170 ID: 301411170
18. N\_2704\_0h Organism: Canis lupus familiaris Source name: skin\_untreated\_0h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411167/> Sample Accession: GSM1411167 ID: 301411167
19. A\_2855\_24h\_S Organism: Canis lupus familiaris Source name: skin\_treated\_saline\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411166/> Sample Accession: GSM1411166 ID: 301411166
20. A\_2855\_24h\_A Organism: Canis lupus familiaris Source name: skin\_treated\_allergen\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411165/> Sample Accession: GSM1411165 ID: 301411165
21. A\_2855\_0h Organism: Canis lupus familiaris Source name: skin\_untreated\_0h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411162/> Sample Accession: GSM1411162 ID: 301411162
22. A\_2853\_24h\_S Organism: Canis lupus familiaris Source name: skin\_treated\_saline\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411161/> Sample Accession: GSM1411161 ID: 301411161
23. A\_2853\_24h\_A Organism: Canis lupus familiaris Source name: skin\_treated\_allergen\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411160/> Sample Accession: GSM1411160 ID: 301411160
24. A\_2853\_0h Organism: Canis lupus familiaris Source name: skin\_untreated\_0h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411157/> Sample Accession: GSM1411157 ID: 301411157
25. A\_2841\_24h\_S Organism: Canis lupus familiaris Source name: skin\_treated\_saline\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411156/> Sample Accession: GSM1411156 ID: 301411156
26. A\_2841\_24h\_A Organism: Canis lupus familiaris Source name: skin\_treated\_allergen\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411155/> Sample Accession: GSM1411155 ID: 301411155
27. A\_2841\_0h Organism: Canis lupus familiaris Source name: skin\_untreated\_0h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411152/> Sample Accession: GSM1411152 ID: 301411152
28. A\_2840\_24h\_S Organism: Canis lupus familiaris Source name: skin\_treated\_saline\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411151/> Sample Accession: GSM1411151 ID: 301411151
29. A\_2840\_24h\_A Organism: Canis lupus familiaris Source name: skin\_treated\_allergen\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411150/> Sample Accession: GSM1411150 ID: 301411150
30. A\_2840\_0h Organism: Canis lupus familiaris Source name: skin\_untreated\_0h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411147/> Sample Accession: GSM1411147 ID: 301411147
31. A\_2839\_24h\_S Organism: Canis lupus familiaris Source name: skin\_treated\_saline\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411146/> Sample Accession: GSM1411146 ID: 301411146
32. A\_2839\_24h\_A Organism: Canis lupus familiaris Source name: skin\_treated\_allergen\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411145/> Sample Accession: GSM1411145 ID: 301411145
33. A\_2839\_0h Organism: Canis lupus familiaris Source name: skin\_untreated\_0h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411142/> Sample Accession: GSM1411142 ID: 301411142
34. A\_2838\_24h\_S Organism: Canis lupus familiaris Source name: skin\_treated\_saline\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411141/> Sample Accession: GSM1411141 ID: 301411141
35. A\_2838\_24h\_A Organism: Canis lupus familiaris Source name: skin\_treated\_allergen\_24h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411140/> Sample Accession: GSM1411140 ID: 301411140
36. A\_2838\_0h Organism: Canis lupus familiaris Source name: skin\_untreated\_0h Platform: GPL18789 Series: GSE58442 FTP download: GEO (TXT) <ftp://ftp.ncbi.nlm.nih.gov/geo/samples/GSM1411nnn/GSM1411137/> Sample Accession: GSM1411137 ID: 301411137