

## **Supplemental Material to:**

**Nicolas Widman, Suhua Feng, Steven E Jacobsen, and  
Matteo Pellegrini**

**Epigenetic differences between shoots and roots in  
*Arabidopsis* reveals tissue-specific regulation**

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article/26869/2013EPI0203R-ST2.xlsx](http://www.landesbioscience.com/journals/epigenetics/article/26869/2013EPI0203R-ST2.xlsx)**

### Supplementary Figure – Overlap Between Differential Genes

RT/STexp - Expression:  $\geq 20$ -fold difference

RT/STmethyl - Methylation: Average CG methylation level difference of 10% (on an absolute scale, not relative to the methylation level of the same gene between root and shoot)

RT/STnucl - Nucleosomes:  $\geq 2.5$ -fold difference

p values: See supplementary table 1

### Supplementary Table 1 – p values of Overlap Between Genes Based on Hypergeometric Distribution

| Differential Group Overlap  | p value: Genes | p value: Transposons |
|-----------------------------|----------------|----------------------|
| Root Exp. + Shoot Methyl.   | 9.1590e-6 *    | 7.8420e-1            |
| Root Exp. + Shoot Nucl.     | 1.0741e-9 *    | 8.5832e-1            |
| Shoot Methyl. + Shoot Nucl. | 4.6629e-15 *   | 5.7217e-8 *          |
| Shoot Exp. + Root Methyl.   | 2.6458e-6 *    | 8.3313e-1            |
| Shoot Exp. + Root Nucl.     | 2.9187e-2      | 9.7183e-2            |
| Root Methyl. + Root Nucl.   | 3.8458e-5 *    | 9.7684e-4 *          |

\* Significant:  $P < 0.025$

Root(Shoot) Exp. - 20-fold higher expression in roots(shoots)

Root(Shoot) Methyl. - Methylation level 10% higher in roots(shoots)

Root(Shoot) Nucl. - 2.5-fold higher nucleosome density in roots(shoots)

### Supplementary Table 2 – Extensin Genes and Differential Gene Overlap

| Differential Group Overlap                             | Genes   |
|--|---|
| Root Exp. + Shoot Methyl. + Shoot Nucl. Extensin Genes | AT1G23720, AT2G24980, AT3G28550, AT3G54580, AT3G54590, AT4G08410, AT4G13390, AT5G06630, AT5G06640 |
| Root Exp. + Shoot Methyl. Extensin Genes               | AT5G35190   |
| Root Exp. + Shoot Methyl. + Shoot Nucl. Other Genes    | AT4G08380, AT4G08400  |

Root Exp. - 20-fold higher expression in roots

Shoot Methyl. - Methylation level 10% higher in shoots

Shoot Nucl. - 2.5-fold higher nucleosome density in shoots