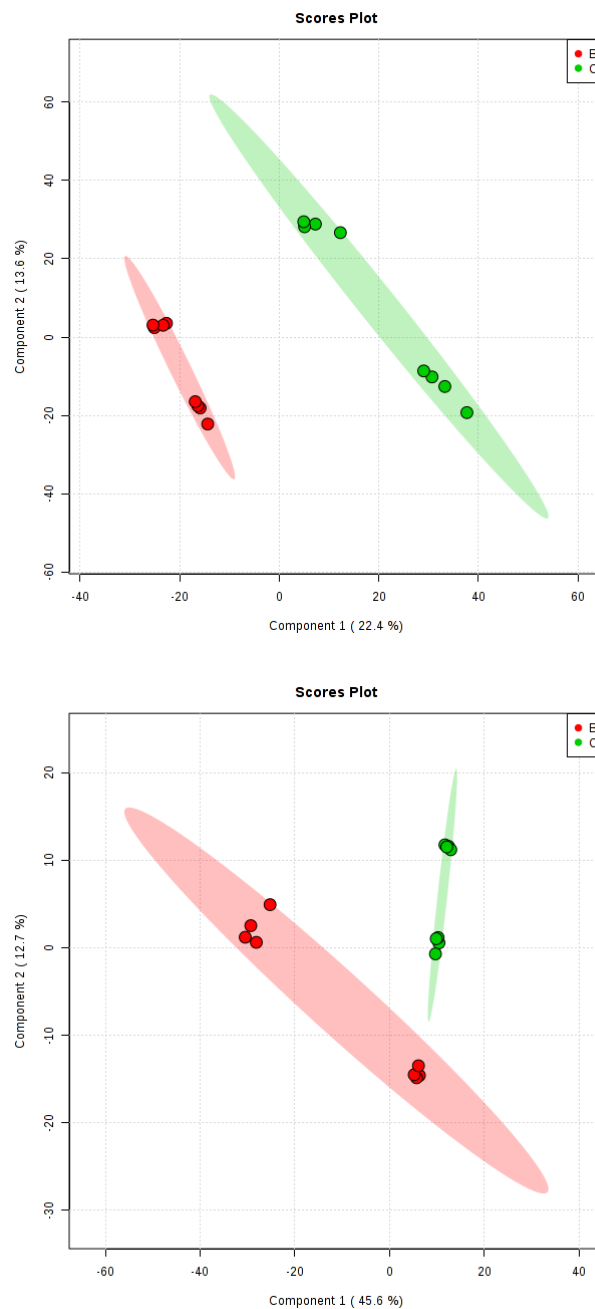


# Annurca Apple Polyphenols protect murine Hair Follicles from Taxane Induced Dystrophy and hijacks PUFA metabolism toward $\beta$ -oxidation.

Gennaro Riccio <sup>1†</sup>, Eduardo Sommella <sup>2†</sup>, Nadia Badolati <sup>1</sup>, Emanuela Salvati <sup>2,3</sup>, Sara Bottone <sup>1</sup>, Pietro Campiglia <sup>2</sup>, Monica Dentice <sup>4</sup>, Giancarlo Tenore <sup>1</sup>, Mariano Stornaiuolo <sup>1,\*</sup> and Ettore Novellino <sup>1,\*</sup>



**Figure S1 a (top), b (bottom):** Partial least squares-discriminant analysis (PLS-DA) of HFs metabolites determined by FT-ICR-MS, the two dimensional score plots show clustering and separation between AAE treated mice (green symbols) and Placebo (red symbols). Ellipses represent 95% confidence intervals.

IUPAC NAME	Metabolite	m/z	$\Delta m/z$ [ppm]	Ions
(5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoic acid	ARA 20:4 $\omega$ -6	327.2295	0.236	[M+Na] <sup>+</sup>
(4Z,6E,8S,10Z)-8-hydroxyhexadeca-4,6,10-trienoic acid	Tetranor 12-HETE	289.1774	0.023	[M+Na] <sup>+</sup>
(5Z,8Z,11Z)-14,15-dihydroxyicosa-5,8,11-trienoic acid	14,15-DiHETrE	361.235	0.018	[M+Na] <sup>+</sup>
5-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxyoct-1-en-1-yl]cyclopentyl]-4-oxopentanoic acid	2,3-Dinor-6-keto-PGF1 $\alpha$	365.1936	0.323	[M+Na] <sup>+</sup>
(5Z)-7-[(1R,5S)-2-oxo-5-(3-oxooctyl)cyclopent-3-en-1-yl]hept-5-enoic acid	15-Keto-13,14-dihydroPGA2	357.2037	-0.124	[M+Na] <sup>+</sup>
(5E)-7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxyoct-1-en-1-yl]cyclopentyl]hept-5-enoic acid	Prostaglandin F2 $\alpha$	377.2300	0.171	[M+Na] <sup>+</sup>
(5E)-7-[3,5-dihydroxy-2-(3-hydroxyoctyl)cyclopentyl]hept-5-enoic acid	13,14-dihydro-PGF2 $\alpha$	357.2612	0.038	[M+Na] <sup>+</sup>
(Z)-7-[(1S,5E)-5-[(E)-oct-2-enylidene]-4-oxocyclopent-2-en-1-yl]hept-5-enoic acid	15-deoxy- $\Delta$ 12,14-PGJ2	339.1932	0.022	[M+Na] <sup>+</sup>
(5Z,8Z,11Z,14Z,17Z)-icosa-5,8,11,14,17-pentaenoic acid	EPA 20:5 $\omega$ -3	325.2050	0	[M+Na] <sup>+</sup>
(6E,8Z,11Z,14Z,17Z)-5-hydroxyicosa-6,8,11,14,17-pentaenoic acid	5-HEPE	341.2088	0.289	[M+Na] <sup>+</sup>
(4Z,7Z,10Z,13Z,16Z,19Z)-docosa-4,7,10,13,16,19-hexaenoic acid	DHA 22:6 $\omega$ -3	351.2295	0.113	[M+Na] <sup>+</sup>
(4Z,7Z,10Z,13Z,15E,19Z)-17-hydroxydocosa-4,7,10,13,15,19-hexaenoic acid	17-HDoHE	367.2245	0.416	[M+Na] <sup>+</sup>
(3Z,6E,8E,12Z,15Z,18Z)-docosa-3,6,8,12,15,18-hexaen-10-ol	13-HDoHE	337.2503	-0.099	[M+Na] <sup>+</sup>
(4Z,7Z,10Z,13Z,16Z)-19,20-dihydroxydocosa-4,7,10,13,16-pentaenoic acid	19,20-DiHDPA	385.235	0.393	[M+Na] <sup>+</sup>
(9Z,12Z,15Z)-octadeca-9,12,15-trienoic acid	$\alpha$ -LA 18:3 $\omega$ -3	301.2138	0.023	[M+Na] <sup>+</sup>
(9Z,12Z)-octadeca-9,12-dienoic acid	LA 18:2 $\omega$ -6	303.2295	-0.017	[M+Na] <sup>+</sup>
(12Z)-9,10-dihydroxyoctadec-12-enoic acid	9,10-DHOME	313.2384	-0.098	[M-H] <sup>-</sup>
(9Z,11E,13S)-13-hydroperoxyoctadeca-9,11-dienoic acid	13-HpODE	335.2193	-0.017	[M+Na] <sup>+</sup>
(9S,10E,12S,13S)-9,12,13-trihydroxyoctadec-10-enoic acid	9,12,13-TriHOME	353.2299	-0.094	[M+Na] <sup>+</sup>

**Table S1:** Identification of metabolites in HFs determined by DI- FT-ICR-MS

