

**SUPPLEMENTAL INFORMATION****Supplemental table 1:** statins classification regarding generation and potency.

<b>Statin</b>	<b>ATC code</b>	<b>Generation</b>	<b>Potency, no posology</b>	<b>Potency, with posology</b>
lovastatin	C10AA02	First	Low	20 low 40 intermediate
pravastatin	C10AA03	First	Low	<40 low 40-80 intermediate
fluvastatin	C10AA04	First	Low	10 low 40-80 intermediate
simvastatin	C10AA01	Second	Intermediate	20-40 intermediate 80 high
pitavastatin	C10AA08	Second	Intermediate	2 intermediate 4 high
atorvastatin	C10AA05	Second	High	10-20 intermediate 40-80 high
cerivastatin	C10AA06	Third	High	100 intermediate 300 high
rosuvastatin	C10AA07	Third	High	5-10 intermediate 20 high

Statins were ordered according to their potency. Adapted from <sup>1,2</sup>.

**Supplemental table 2:** LDL-cholesterol thresholds used to define control of dyslipidemia according to the European Society of Cardiology / European Atherosclerosis Society (ESC/EAS) criteria.

<b>Risk categories according to SCORE</b>	<b>Control</b>
<i>Very high risk</i>	
10–y risk >10%, diabetes or personal history of CVD	<1.8 mmol/L (70 mg/dL)
<i>High risk</i>	
10–y risk 5% – 10%	<2.6 mmol/L (100 mg/dL)
<i>Other categories</i>	
Less than 2 CVD risk factors and 10–y risk <5%	<4.0 mmol/L (155 mg/dL)

ESC/EAS criteria as stated in <sup>3</sup>. Risk categories based on the SCORE equation recalibrated for the Swiss population <sup>4</sup>.

**Supplemental table 3:** LDL-cholesterol thresholds used to define control of dyslipidemia according to the Swiss Group for Lipids and Atherosclerosis.

<b>Risk categories *</b>	<b>Control</b>
<i>High-risk</i>	
10-y risk >20%, diabetes or personal history of CVD	<2.6 mmol/L (100 mg/dL)
<i>Intermediate risk</i>	
At least two CVD risk factors and 10-y risk 10% – 20%	<3.4 mmol/L (130 mg/dL)
<i>Low risk</i>	
At least two CVD risk factors and 10-y risk <10%	<4.2 mmol/L (160 mg/dL)
<i>Very low risk</i>	
Less than 2 CVD risk factors and 10-y risk <10%	<4.2 mmol/L (160 mg/dL)

\* Risk calculation as defined in <https://www.agla.ch/fr/calculateurs-outils/calculateur-de-risque-du-gsla>. According to <sup>5</sup>.

**Supplemental table 4:** list of specific SNPs interacting with the efficacy of statin treatment.

Gene	SNP	Simvastatin	Pravastatin	Atorvastatin	Rosuvastatin	Lovastatin	Fluvastatin
<i>ABCB1</i>	rs1045642	X, ↑		O			
<i>ABCB1</i>	rs1128503	↑					
<i>ABCB1</i>	rs1922242	O MI	O MI low	O MI low			O
<i>ABCB1</i>	rs2032582	↑					
<i>ABCB1</i>	rs3789244	O MI	O MI	O MI			
<i>ABCG2/BCRP</i>	rs2199936				O		
<i>ABCG2/BCRP</i>	rs2231137				X		
<i>ABCG2/BCRP</i>	rs2231142			O	X		X
<i>ABCG8</i>	rs11887534			O			
<i>ACE</i>	rs1799752						↑
<i>APOA1</i>	rs670		O	O			
<i>APOA1</i>	rs5069			O			
<i>APOA5</i>	rs662799	O		O		O	
<i>APOC1</i>	rs4420638	O	O	O	O		
<i>APOE</i>	rs429358	O		↑		↓	
<i>APOE</i>	rs445925			X			
<i>APOE</i>	rs449647			↑			
<i>APOE</i>	rs71352238				O		
<i>APOE</i>	rs7412		↑	↑		↓	
<i>CETP</i>	rs5783961						O
<i>CETP</i>	rs5882	O					
<i>CETP</i>	rs708272	O	O	O			
<i>CLMN</i>	rs8014194	O	O	O			
<i>CYP2C9</i>	rs1057910						X
<i>CYP2D6</i>	rs3892097			X			
<i>CYP3A4</i>	rs2740574			↑			
<i>CYP3A4</i>	rs355599367	X, ↑					
<i>CYP3A4</i>	rs55951658	O					
<i>CYP3A5</i>	rs776746	↓		X, ↓		↓	
<i>CYP7A1</i>	rs3808607			↓			
<i>ESR1</i>	rs2234693			O			
<i>ESR1</i>	rs9340799			-			
<i>HMGCR</i>	rs12916			O			
<i>HMGCR</i>	rs17238540		-				
<i>HMGCR</i>	rs17244841		↓				
<i>HMGCR</i>	rs17671591			X			
<i>HMGCR</i>	rs5908			-			
<i>KIF6</i>	rs20455		O	O			
<i>LDLR</i>	rs5925						↑
<i>LPA</i>	rs10455872			-	O		
<i>LPL</i>	rs328				O		
<i>PCSK9</i>	rs17111584				O		
<i>PON1</i>	rs662		O				
<i>SCAP</i>	rs12487736	↑					
<i>SCCO1B1</i>	rs2306283		↓		X		↑
<i>SLCO1B1</i>	rs11045819						↑
<i>SLCO1B1</i>	rs4149015		X				
<i>SLCO1B1</i>	rs4149056	X, ↓	X, ↓	X, ↓	X		
<i>SOD2</i>	rs4880				↑		
<i>SREBF2</i>	rs4822063			↓			
<i>TLR4</i>	rs4986790		O				

↑, increases effect; ↓, decreases effect; X, safety issues; O, other; MI, myocardial infarction. Data adapted from <sup>6</sup>.

**Supplemental table 5:** data used to compute the genetic risk scores for total, LDL and HDL-cholesterol levels.

Score / Locus	Chr	SNP	Alleles (+/-)	Minor allele	$\beta$ for weighting
<b>Total cholesterol</b>					
<i>ASAP3</i>	1	rs1077514	T/C	C	-0.030
<i>LDLRAP1</i>	1	rs12027135	T/A	A	-1.22
<i>PCSK9</i>	1	rs2479409	G/A	G	1.96
<i>MOSC1</i>	1	rs2807834	G/T	T	-1.38
<i>ANGPTL3</i>	1	rs3850634	T/G	G	-2.60
<i>IRF2BP2</i>	1	rs514230	T/A	A	-1.36
<i>SORT1</i>	1	rs629301	T/G	G	-5.41
<i>EVI5</i>	1	rs7515577	A/C	C	-1.18
<i>INSIG2</i>	2	rs10490626	G/A	A	0.042
<i>UGT1A1</i>	2	rs11563251	T/C	T	0.037
<i>FAM117B</i>	2	rs11694172	G/A	G	0.028
<i>GCKR</i>	2	rs1260326	T/C	T	1.91
<i>APOB</i>	2	rs1367117	A/G	A	4.16
<i>LOC8431</i>	2	rs2030746	T/C	T	0.020
<i>ABCB11</i>	2	rs2287623	G/A	G	0.027
<i>ABCG5/8</i>	2	rs4299376	G/T	G	3.01
<i>RAB3GAP1</i>	2	rs6759321	T/G	T	1.18
<i>PXK</i>	3	rs13315871	G/A	A	-0.036
<i>RAF1</i>	3	rs2290159	G/C	C	-1.42
<i>CMTM6</i>	3	rs7640978	C/T	T	-0.038
<i>LRPAP1</i>	4	rs6831256	G/A	G	-0.022
<i>HMGCR</i>	5	rs12916	C/T	C	2.84
<i>CSNK1G3</i>	5	rs4530754	A/G	G	-0.023
<i>TIMD4</i>	5	rs6882076	C/T	T	-1.98
<i>LPA</i>	6	rs1564348	C/T	C	2.18
<i>HFE</i>	6	rs1800562	G/A	A	-2.16
<i>KCNK17</i>	6	rs2758886	A/G	A	0.023
<i>MYLIP</i>	6	rs3757354	C/T	T	-1.46
<i>HBS1L</i>	6	rs9376090	C/T	T	-0.025
<i>FRK</i>	6	rs9488822	A/T	T	-1.18
<i>GPR146</i>	7	rs1997243	G/A	G	0.033
<i>DNAH11</i>	7	rs2285942	T/C	T	1.70
<i>SOX17</i>	8	rs10102164	A/G	A	0.030
<i>CYP741</i>	8	rs1030431	A/G	A	1.26
<i>PLEC1</i>	8	rs11136341	G/A	G	1.34
<i>NAT2</i>	8	rs1961456	G/A	G	1.07
<i>PPP1R3B</i>	8	rs2126259	C/T	T	-3.14
<i>TRPS1</i>	8	rs2737229	A/C	C	-1.11
<i>TRIB1</i>	8	rs2954022	C/A	A	-2.30
<i>ABCA1</i>	9	rs1883025	C/T	T	-2.24
<i>VLDLR</i>	9	rs3780181	A/G	G	-0.044
<i>TTC39B</i>	9	rs581080	C/G	G	-1.57
<i>ABO</i>	9	rs651007	T/C	T	2.30
<i>VIM-CUBN</i>	10	rs10904908	G/A	G	0.025
<i>GPAM</i>	10	rs2255141	A/G	A	1.14
<i>MARCH8-ALOX5</i>	10	rs970548	C/A	C	-0.026

<i>SPTY2D1</i>	11	rs10832963	G/T	T	-1.06
<i>ST3GAL4</i>	11	rs11220463	T/A	T	2.01
<i>PHLDB1</i>	11	rs11603023	T/C	T	0.022
<i>FADS1-2-3</i>	11	rs174550	T/C	C	-1.78
<i>UBASH3B</i>	11	rs7941030	C/T	C	0.97
<i>APOA1</i>	11	rs964184	G/C	G	4.68
<i>PHC1-A2ML1</i>	12	rs4883201	A/G	G	-0.035
<i>LIPC</i>	15	rs1532085	A/G	A	1.54
<i>HPR</i>	16	rs2000999	A/G	A	2.34
<i>CETP</i>	16	rs3764261	A/C	A	1.67
<i>DLG4</i>	17	rs314253	T/C	C	-0.023
<i>OSBPL7</i>	17	rs7206971	A/G	A	1.01
<i>LIPG</i>	18	rs7239867	G/A	A	-1.94
<i>CILP2</i>	19	rs10401969	T/C	C	-4.74
<i>FLJ36070</i>	19	rs492602	G/A	G	1.27
<i>LDLR</i>	19	rs6511720	G/T	T	-7.09
<i>HNF4A</i>	20	rs1800961	C/T	T	-4.73
<i>ERGIC3</i>	20	rs2277862	C/T	T	-1.19
<i>MAFB</i>	20	rs2902940	A/G	G	-1.38
<i>TOP1</i>	20	rs4297946	C/G	C	1.52
<i>TOM1</i>	22	rs138777	A/G	A	0.021
<i>PPARA</i>	22	rs4253772	T/C	T	0.032
<b>LDL cholesterol</b>					
<i>LDLRAP1</i>	1	rs12027135	T/A	A	-1.10
<i>PIGV-NROB2</i>	1	rs12748152	T/C	T	0.05
<i>PCSK9</i>	1	rs2479409	G/A	G	2.01
<i>ANXA9-CERS2</i>	1	rs267733	A/G	G	-0.03
<i>MOSC1</i>	1	rs2807834	G/T	T	-1.09
<i>ANGPTL3</i>	1	rs3850634	T/G	G	-1.59
<i>IRF2BP2</i>	1	rs514230	T/A	A	-1.13
<i>SORT1</i>	1	rs629301	T/G	G	-5.65
<i>INSIG2</i>	2	rs10490626	G/A	A	-0.05
<i>UGT1A1</i>	2	rs11563251	T/C	T	0.03
<i>FN1</i>	2	rs1250229	C/T	T	-0.02
<i>APOB</i>	2	rs1367117	A/G	A	4.05
<i>LOC84931</i>	2	rs2030746	T/C	T	0.02
<i>EHBP1</i>	2	rs2710642	A/G	G	-0.02
<i>ABCG5/8</i>	2	rs4299376	G/T	G	2.75
<i>ACAD11</i>	3	rs17404153	G/T	T	-0.03
<i>CMTM6</i>	3	rs7640978	C/T	T	-0.04
<i>LRPAP1</i>	4	rs6831256	G/A	G	0.02
<i>HMGCR</i>	5	rs12916	C/T	C	2.45
<i>CSNK1G3</i>	5	rs4530754	A/G	G	-0.03
<i>TIMD4</i>	5	rs6882076	C/T	T	-1.67
<i>FRK</i>	6	rs11153594	C/T	T	-0.89
<i>LPA</i>	6	rs1564348	C/T	C	1.95
<i>HFE</i>	6	rs1800562	G/A	A	-2.22
<i>MYLIP</i>	6	rs3757354	C/T	T	-1.43
<i>DNAH11</i>	7	rs12670798	C/T	C	1.26
<i>NPC1L1</i>	7	rs217386	G/A	A	-1.17
<i>SOX17</i>	8	rs10102164	A/G	A	0.03
<i>CYP741</i>	8	rs1030431	A/G	A	0.95

<i>PLEC1</i>	8	rs11136341	G/A	G	1.40
<i>PPP1R3B</i>	8	rs2126259	C/T	T	-3.14
<i>TRIB1</i>	8	rs2954022	C/A	A	-1.84
<i>VLDLR</i>	9	rs3780181	A/G	G	-0.04
<i>ABO</i>	9	rs649129	T/C	T	2.05
<i>GPAM</i>	10	rs1129555	A/G	A	1.08
<i>ST3GAL4</i>	11	rs11220462	A/G	A	1.95
<i>FADS1-2-3</i>	11	rs174583	C/T	T	-1.71
<i>APOA1</i>	11	rs964184	G/C	G	2.85
<i>BRCA2</i>	13	rs4942486	T/C	T	0.02
<i>HPR</i>	16	rs2000999	A/G	A	2.00
<i>CETP</i>	16	rs247616	C/T	T	-1.45
<i>DLG4</i>	17	rs314253	T/C	C	-0.02
<i>OSBPL7</i>	17	rs7206971	A/G	A	1.01
<i>CILP2</i>	19	rs10401969	T/C	C	-3.11
<i>SNX5</i>	20	rs2328223	C/A	C	0.03
<i>MAFB</i>	20	rs2902941	A/G	G	-0.98
<i>SPTLC3</i>	20	rs364585	G/A	A	-0.03
<i>TOP1</i>	20	rs909802	T/C	T	1.41
<i>PPARA</i>	22	rs4253772	T/C	T	0.03
<i>MTMR3</i>	22	rs5763662	T/C	T	0.08
<b>HDL cholesterol</b>					
<i>HDGF-PMVK</i>	1	rs12145743	G/T	G	0.200
<i>PIGV-NROB2</i>	1	rs12748152	C/T	T	-0.051
<i>ZNF648</i>	1	rs1689800	G/A	G	-0.47
<i>ANGPTL1</i>	1	rs4650994	G/A	G	0.021
<i>PABPC4</i>	1	rs4660293	G/A	G	-0.48
<i>GALNT2</i>	1	rs4846914	G/A	G	-0.61
<i>APOB</i>	2	rs1042034	T/C	C	0.90
<i>COBLL1</i>	2	rs12328675	T/C	C	0.68
<i>IRS1</i>	2	rs1515100	A/C	C	0.46
<i>STAB1</i>	3	rs13326165	A/G	A	0.029
<i>ACAD11</i>	3	rs17404153	G/T	T	0.028
<i>RBM5</i>	3	rs2013208	T/C	T	0.025
<i>ATG7</i>	3	rs2606736	C/T	C	0.025
<i>GSK3B</i>	3	rs6805251	T/C	T	0.020
<i>C4orf52</i>	4	rs10019888	A/G	G	-0.027
<i>SLC39A8</i>	4	rs13107325	T/C	T	-0.84
<i>ADH5</i>	4	rs2602836	A/G	A	0.019
<i>FAM13A</i>	4	rs3822072	G/A	A	-0.025
<i>ARL15</i>	5	rs6450176	A/G	A	-0.49
<i>RSPO3</i>	6	rs1936800	C/T	C	0.020
<i>C6orf106</i>	6	rs2814944	A/G	A	-0.49
<i>CITED2</i>	6	rs605066	C/T	C	-0.39
<i>VEGFA</i>	6	rs998584	C/A	A	-0.026
<i>MLXIPL</i>	7	rs17145738	C/T	T	0.57
<i>TMEM176A</i>	7	rs17173637	T/C	C	-0.036
<i>SNX13</i>	7	rs4142995	G/T	T	-0.026
<i>KLF14</i>	7	rs4731702	C/T	T	0.59
<i>IKZF1</i>	7	rs4917014	G/T	G	0.022
<i>DAGLB</i>	7	rs702485	G/A	G	0.024
<i>TRIB1</i>	8	rs10808546	C/T	T	0.61

<i>LPL</i>	8	rs12678919	A/G	G	2.25
<i>TRPS1</i>	8	rs2293889	T/G	T	-0.44
<i>PPP1R3B</i>	8	rs9987289	A/G	A	-1.21
<i>ABCA1</i>	9	rs1883025	T/C	T	-0.94
<i>TTC39B</i>	9	rs643531	C/A	C	-0.72
<i>MARCH8-ALOX5</i>	10	rs970548	C/A	C	0.026
<i>OR4C46</i>	11	rs11246602	C/T	C	0.034
<i>KAT5</i>	11	rs12801636	A/G	A	0.024
<i>FADS1-2-3</i>	11	rs174601	T/C	T	-0.73
<i>AMPD3</i>	11	rs2923084	G/A	G	-0.41
<i>LRP4</i>	11	rs3136441	T/C	C	0.78
<i>MOGAT2-DGAT2</i>	11	rs499974	C/A	A	-0.026
<i>UBASH3B</i>	11	rs7115089	C/G	G	0.31
<i>APOA1</i>	11	rs964184	G/C	G	-1.50
<i>LRP1</i>	12	rs3741414	C/T	T	0.46
<i>SBNO1</i>	12	rs4759375	C/T	T	0.86
<i>ZNF664</i>	12	rs4765127	G/T	T	0.44
<i>PDE3A</i>	12	rs7134375	C/A	A	0.40
<i>MVK</i>	12	rs7134594	C/T	C	-0.44
<i>SCARB1</i>	12	rs838880	T/C	C	0.61
<i>LIPC</i>	15	rs1532085	G/A	A	1.45
<i>LACTB</i>	15	rs2652834	A/G	A	-0.39
<i>FTO</i>	16	rs1121980	G/A	A	-0.020
<i>LCAT</i>	16	rs16942887	G/A	A	1.27
<i>CMIP</i>	16	rs2925979	T/C	T	-0.45
<i>CETP</i>	16	rs3764261	C/A	A	3.39
<i>PGS1</i>	17	rs4082919	G/T	G	-0.40
<i>ABCA8</i>	17	rs4148008	G/C	G	-0.42
<i>STARD3</i>	17	rs881844	C/G	C	-0.51
<i>MC4R</i>	18	rs12967135	A/G	A	-0.42
<i>LIPG</i>	18	rs7241918	G/T	G	-1.31
<i>HAS1</i>	19	rs17695224	G/A	A	-0.029
<i>LILRA3</i>	19	rs386000	G/C	C	0.83
<i>ANGPTL4</i>	19	rs7255436	C/A	C	-0.45
<i>PEPD</i>	19	rs731839	A/G	G	-0.022
<i>LOC55908</i>	19	rs737337	C/T	C	-0.64
<i>HNF4A</i>	20	rs1800961	T/C	T	-1.88
<i>PLTP</i>	20	rs6065906	C/T	C	-0.93
<i>UBE2L3</i>	22	rs181362	T/C	T	-0.46

Chr, chromosome; SNP, single nucleotide polymorphism. Adapted from <sup>7</sup>.

**Supplemental table 6:** bivariate comparisons of socio-economic and clinical characteristics between retained and excluded participants. Data from the baseline (2003-2006), first (2009-2012) and second (2014-2017) follow-ups of the CoLaus|PsyCoLaus study, Lausanne, Switzerland.

	Baseline			First follow-up			Second follow-up		
	Included	Excluded	p-value	Included	Excluded	p-value	Included	Excluded	p-value
N	<b>617</b>	<b>92</b>		<b>844</b>	<b>212</b>		<b>798</b>	<b>353</b>	
Age (years)	61.6 ± 8.5	58.1 ± 9.6	<0.001	64.5 ± 8.8	61.7 ± 10.4	<0.001	68.1 ± 9.2	67.5 ± 10.3	0.309
Women (%)	263 (42.6)	28 (30.4)	0.027	409 (48.5)	90 (42.5)	0.117	401 (50.3)	166 (47.0)	0.313
Swiss national (%)	430 (69.7)	59 (64.1)	0.282	600 (71.1)	116 (54.7)	<0.001	563 (70.6)	191 (54.1)	<0.001
Education (%)			0.301			0.027			0.714
High	66 (10.7)	5 (5.5)		123 (14.6)	47 (22.2)		120 (15.0)	54 (15.3)	
Middle	132 (21.4)	20 (22.0)		185 (21.9)	43 (20.3)		180 (22.6)	72 (20.4)	
Low	419 (67.9)	66 (72.5)		536 (63.5)	122 (57.6)		498 (62.4)	227 (64.3)	
Married/couple (%)	428 (69.4)	65 (71.4)	0.690	505 (59.8)	121 (57.1)	0.465	448 (56.1)	166 (53.9)	0.501
BMI (kg/m <sup>2</sup> )	28.0 ± 4.5	28.1 ± 4.8	0.792	27.6 ± 4.8	28.0 ± 5.0	0.398			
BMI categories (%)			0.979			0.986			0.197
Normal	155 (25.1)	24 (26.1)		243 (28.8)	53 (28.2)		254 (31.8)	59 (26.6)	
Overweight	277 (44.9)	41 (44.6)		378 (44.8)	85 (45.2)		327 (41.0)	91 (41.0)	
Obese	185 (30.0)	27 (29.4)		223 (26.4)	50 (26.6)		217 (27.2)	72 (32.4)	
Smoking (%)			0.064			0.099			0.067
Never	210 (34.0)	39 (42.9)		295 (35.0)	73 (34.8)		290 (36.3)	103 (38.7)	
Former	255 (41.3)	26 (28.6)		385 (45.6)	83 (39.5)		365 (45.7)	102 (38.4)	
Current	152 (24.6)	26 (28.6)		164 (19.4)	54 (25.7)		143 (17.9)	61 (22.9)	
Alcohol drinker (%)	456 (73.9)	65 (70.7)	0.510	632 (74.9)	147 (69.3)	0.101	525 (72.3)	149 (62.3)	0.004
Treatment for									
Hypertension	303 (49.1)	49 (53.3)	0.457	436 (51.7)	101 (47.6)	0.296	425 (53.3)	190 (53.8)	0.859
Diabetes	95 (15.4)	24 (26.1)	0.010	148 (17.5)	40 (18.9)	0.650	157 (19.7)	69 (19.6)	0.960
Parental history (%)	164 (26.6)	24 (26.1)	0.920	218 (25.8)	52 (24.5)	0.698	211 (26.4)	64 (18.1)	0.002
CVD risk (%)			0.551			0.717			<0.001

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Low	267 (43.3)	36 (39.1)	367 (43.5)	89 (42.0)	356 (44.6)	103 (29.2)
Intermediate	182 (29.5)	26 (28.3)	203 (24.1)	48 (22.6)	165 (20.7)	121 (34.3)
High	168 (27.2)	30 (32.6)	274 (32.5)	75 (35.4)	277 (34.7)	129 (36.5)

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BMI, body mass index; CVD, cardio vascular disease. Results are expressed as number of participants (column %) for categorical variables and as average  $\pm$  standard deviation for continuous variables. Between-groups comparisons performed using chi-square for categorical variables and student's t-test for continuous variables.

**Supplemental table 7:** bivariate comparison of the statin generation and potency among participants treated for dyslipidemia, according to controlled and uncontrolled status as per European Society of Cardiology / European Atherosclerosis Society (ESC/EAS) criteria. Data from the first (2009-2012) and second (2014-2017) follow-ups of the CoLaus|PsyCoLaus study, Lausanne, Switzerland. Analysis restricted to participants taking statins.

	First follow-up			Second follow-up		
	Uncontrolled	Controlled	p-value	Uncontrolled	Controlled	p-value
N	<b>373</b>	<b>288</b>		<b>428</b>	<b>370</b>	
Generation			0.004			0.212
First	99 (26.5)	50 (17.4)		54 (16.5)	32 (12.2)	
Second	249 (66.8)	204 (70.8)		233 (71.0)	188 (71.8)	
Third	25 (6.7)	34 (11.8)		41 (12.5)	42 (16.0)	
Potency §			0.018			0.018
Low	99 (26.5)	50 (17.4)		54 (16.5)	32 (12.2)	
Intermediate	130 (34.9)	109 (37.9)		107 (32.6)	66 (25.2)	
High	144 (38.6)	129 (44.8)		167 (50.9)	164 (62.6)	
N	<b>348</b>	<b>274</b>		<b>328</b>	<b>262</b>	
Potency †			0.911			0.067
Low	166 (47.7)	126 (46.0)		117 (40.6)	72 (31.2)	
Intermediate	153 (44.0)	124 (45.3)		125 (43.4)	111 (48.0)	
High	29 (8.3)	24 (8.7)		46 (16.0)	48 (20.8)	

§, not considering posology; †, considering posology. Results are expressed as number of participants (column %). Between-groups comparisons performed using chi-square.

**Supplemental table 8:** multivariable analysis of the factors associated with dyslipidemia control as per European Society of Cardiology / European Atherosclerosis Society criteria. Data from the first (2009-2012) and second (2014-2017) follow-ups of the CoLaus|PsyCoLaus study, Lausanne, Switzerland. Analysis taking into account statin potency, but not considering posology.

	First follow-up		Second follow-up	
	OR (95% CI)	p-value	OR (95% CI)	p-value
Age (per 10 years increase)	0.31 (0.23 - 0.41)	<0.001	0.36 (0.27 - 0.47)	<0.001
Man vs. woman	0.59 (0.38 - 0.90)	0.014	1.36 (0.88 - 2.11)	0.171
Swiss vs. Non-Swiss	1.16 (0.76 - 1.78)	0.495	1.17 (0.75 - 1.81)	0.487
Education				
High	1 (ref.)		1 (ref.)	
Middle	0.76 (0.39 - 1.48)	0.415	1.04 (0.52 - 2.08)	0.908
Low	0.87 (0.48 - 1.57)	0.649	1.02 (0.56 - 1.87)	0.937
<i>p-value for trend</i>	0.649		0.937	
Married vs. not married	1.23 (0.83 - 1.84)	0.299	1.20 (0.80 - 1.79)	0.386
Body mass index categories				
Normal	1 (ref.)		1 (ref.)	
Overweight	0.86 (0.53 - 1.38)	0.523	0.57 (0.35 - 0.93)	0.025
Obese	0.93 (0.54 - 1.61)	0.807	0.53 (0.30 - 0.94)	0.031
<i>p-value for trend</i>	0.807		0.031	
Smoking categories				
Never	1 (ref.)		1 (ref.)	
Former	1.13 (0.72 - 1.77)	0.590	1.19 (0.77 - 1.85)	0.428
Current	0.86 (0.48 - 1.55)	0.614	0.90 (0.49 - 1.65)	0.729
<i>p-value for trend</i>	0.614		0.729	
Alcohol drinker (yes vs. no)	0.81 (0.51 - 1.27)	0.360	0.68 (0.43 - 1.08)	0.101
AntiHTA ttt (yes vs. no)	0.95 (0.62 - 1.47)	0.821	0.80 (0.51 - 1.25)	0.327
Parental history (yes vs. no)	1.25 (0.79 - 1.99)	0.338	0.75 (0.47 - 1.21)	0.240
CVD risk				
Other	1 (ref.)		1 (ref.)	
High	0.63 (0.39 - 1.02)	0.060	1.37 (0.78 - 2.40)	0.275
Very high	0.08 (0.05 - 0.14)	<0.001	0.35 (0.21 - 0.58)	<0.001
<i>p-value for trend</i>	<0.001		<0.001	
LDL genetic risk score quartiles				
First	1 (ref.)		1 (ref.)	
Second	0.89 (0.52 - 1.53)	0.680	1.63 (0.92 - 2.86)	0.092
Third	0.92 (0.54 - 1.57)	0.757	1.76 (1.02 - 3.03)	0.041
Fourth	1.11 (0.65 - 1.91)	0.702	1.58 (0.90 - 2.77)	0.112
<i>p-value for trend</i>	0.694		0.109	
Number of drugs (per 1 unit)	1.14 (1.05 - 1.25)	0.002	1.06 (0.99 - 1.15)	0.099
Statin potency, no posology				
Low	1 (ref.)		1 (ref.)	
Intermediate	1.98 (1.18 - 3.34)	0.010	1.50 (0.80 - 2.82)	0.209

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High	2.08 (1.25 - 3.46)	0.005	2.25 (1.26 - 4.01)	0.006
<i>p-value for trend</i>	0.005		0.006	
Fibrates	NC		2.16 (0.16 - 29.1)	0.560
Other hypolipidemic drugs	0.95 (0.41 - 2.22)	0.905	1.07 (0.48 - 2.37)	0.867

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OR, odds ratio; CI, confidence interval; antiHTA ttt, antihypertensive drug treatment; NC, not computable. Results are expressed as odds ratio and (95% confidence interval). Statistical analysis using logistic regression.

**Supplemental table 9:** multivariable analysis of the factors associated with dyslipidemia control as per European Society of Cardiology / European Atherosclerosis Society criteria. Data from the first (2009-2012) and second (2014-2017) follow-ups of the CoLaus|PsyCoLaus study, Lausanne, Switzerland. Analysis taking into account statin potency and posology.

	First follow-up		Second follow-up	
	OR (95% CI)	p-value	OR (95% CI)	p-value
Age (per 10 years increase)	0.31 (0.24 - 0.42)	<0.001	0.37 (0.27 - 0.50)	<0.001
Man vs. woman	0.56 (0.36 - 0.86)	0.008	1.45 (0.91 - 2.31)	0.120
Swiss vs. Non-Swiss	1.14 (0.74 - 1.78)	0.548	1.11 (0.69 - 1.76)	0.672
Education				
High	1 (ref.)		1 (ref.)	
Middle	0.74 (0.37 - 1.48)	0.396	0.95 (0.46 - 1.95)	0.882
Low	0.86 (0.47 - 1.56)	0.619	0.94 (0.50 - 1.76)	0.835
<i>p-value for trend</i>	0.619		0.835	
Married vs. not married	1.25 (0.83 - 1.88)	0.29	1.17 (0.76 - 1.80)	0.481
Body mass index categories				
Normal	1 (ref.)		1 (ref.)	
Overweight	0.87 (0.54 - 1.42)	0.586	0.62 (0.37 - 1.05)	0.073
Obese	0.89 (0.50 - 1.56)	0.677	0.56 (0.31 - 1.02)	0.058
<i>p-value for trend</i>	0.677		0.058	
Smoking categories				
Never	1 (ref.)		1 (ref.)	
Former	1.12 (0.71 - 1.77)	0.629	1.12 (0.7 - 1.78)	0.636
Current	0.91 (0.50 - 1.65)	0.747	0.82 (0.42 - 1.58)	0.545
<i>p-value for trend</i>	0.747		0.545	
Alcohol drinker (yes vs. no)	0.73 (0.45 - 1.16)	0.183	0.58 (0.35 - 0.95)	0.031
AntiHTA ttt (yes vs. no)	0.99 (0.64 - 1.55)	0.977	0.89 (0.55 - 1.42)	0.618
Parental history (yes vs. no)	1.24 (0.77 - 1.98)	0.382	0.85 (0.51 - 1.41)	0.529
CVD risk				
Other	1 (ref.)		1 (ref.)	
High	0.64 (0.39 - 1.04)	0.074	1.29 (0.71 - 2.33)	0.400
Very high	0.08 (0.05 - 0.15)	<0.001	0.35 (0.20 - 0.61)	<0.001
<i>p-value for trend</i>	<0.001		<0.001	
LDL genetic risk score quartiles				
First	1 (ref.)		1 (ref.)	
Second	1.01 (0.58 - 1.75)	0.979	1.63 (0.89 - 2.96)	0.111
Third	1.15 (0.66 - 1.99)	0.623	1.89 (1.06 - 3.36)	0.031
Fourth	1.24 (0.71 - 2.16)	0.452	1.68 (0.93 - 3.02)	0.085
<i>p-value for trend</i>	0.392		0.073	
Number of drugs (per 1 unit)	1.13 (1.03 - 1.23)	0.008	1.04 (0.96 - 1.13)	0.366
Statin potency, with posology				
Low	1 (ref.)		1 (ref.)	
Intermediate	1.10 (0.73 - 1.65)	0.656	1.37 (0.86 - 2.17)	0.183

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High	1.35 (0.63 - 2.88)	0.437	1.69 (0.89 - 3.21)	0.110
<i>p-value for trend</i>	0.437		0.110	
Fibrates	NC		2.20 (0.16 - 31.2)	0.559
Other hypolipidemic drugs	0.91 (0.38 - 2.21)	0.839	1.06 (0.45 - 2.47)	0.898

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OR, odds ratio; CI, confidence interval; antiHTA ttt, antihypertensive drug treatment; NC, not computable. Results are expressed as odds ratio and (95% confidence interval). Statistical analysis using logistic regression.

**Supplemental table 10:** bivariate comparisons of socio-economic and clinical characteristics among participants treated for dyslipidemia, according to controlled and uncontrolled status as per the Swiss Group for Lipids and Atherosclerosis criteria. Data from the baseline (2003-2006), first (2009-2012) and second (2014-2017) follow-ups of the CoLaus|PsyCoLaus study, Lausanne, Switzerland.

	Baseline			First follow-up			Second follow-up		
	Uncontrolled	Controlled	p-value	Uncontrolled	Controlled	p-value	Uncontrolled	Controlled	p-value
N	<b>184</b>	<b>433</b>		<b>266</b>	<b>578</b>		<b>139</b>	<b>659</b>	
Age (years)	61.5 ± 8.5	61.7 ± 8.5	0.728	64.5 ± 8.6	64.5 ± 8.9	0.947	67.1 ± 9.0	68.4 ± 9.3	0.139
Women (%)	81 (44.0)	182 (42.0)	0.648	119 (44.7)	290 (50.2)	0.142	72 (51.8)	329 (49.9)	0.688
Swiss national (%)	128 (70.0)	302 (69.6)	0.929	183 (69.1)	417 (72.0)	0.378	105 (74.5)	458 (69.7)	0.261
Education (%)			0.474			0.707			0.354
High	47 (10.9)	66 (10.7)		16 (6.0)	38 (6.6)		10 (7.2)	50 (7.6)	
Middle	98 (22.6)	132 (21.4)		39 (14.7)	89 (15.4)		17 (12.2)	53 (8.0)	
Low	288 (66.5)	419 (67.9)		50 (18.8)	125 (21.6)		23 (16.6)	95 (14.4)	
Married/couple (%)	127 (69.0)	301 (69.5)	0.903	353 (61.1)	505 (59.8)	0.279	74 (53.2)	374 (56.8)	0.448
BMI (kg/m <sup>2</sup> )	28.4 ± 4.4	27.8 ± 4.5	0.150	28.2 ± 4.9	27.4 ± 4.7	0.038	28.6 ± 4.8	27.4 ± 4.9	0.008
BMI categories (%)			0.354			0.125			0.033
Normal	40 (21.7)	115 (26.6)		69 (25.9)	174 (30.1)		33 (23.7)	221 (33.5)	
Overweight	83 (45.1)	194 (44.8)		115 (43.2)	263 (45.5)		58 (41.7)	269 (40.8)	
Obese	61 (33.2)	124 (28.6)		82 (30.8)	141 (24.4)		48 (34.5)	169 (25.6)	
Smoking (%)			0.285			0.019			0.110
Never	152 (35.1)	210 (34.0)		218 (37.7)	295 (35.0)		235 (35.7)	290 (36.3)	
Former	182 (42.0)	255 (41.3)		259 (44.8)	385 (45.6)		312 (47.3)	365 (45.7)	
Current	99 (22.9)	152 (24.6)		101 (17.5)	164 (19.4)		112 (17.0)	143 (17.9)	
Alcohol drinker (%)	148 (80.4)	308 (71.1)	0.016	207 (77.8)	425 (73.5)	0.182	93 (74.4)	432 (71.9)	0.567
Treatment for									
Hypertension	98 (53.3)	205 (47.3)	0.179	41 (44.1)	395 (52.6)	0.121	79 (56.8)	346 (52.5)	0.352
Diabetes	36 (19.6)	59 (13.6)	0.061	13 (14.0)	135 (18.0)	0.339	34 (24.5)	123 (18.7)	0.118
Parental history (%)	134 (72.8)	319 (73.7)	0.828	69 (25.9)	149 (25.8)	0.960	94 (67.6)	493 (74.8)	0.081

CVD risk (%)			<0.001			<0.001			<0.001
Low	32 (17.4)	234 (54.0)		47 (17.7)	319 (55.2)		28 (20.1)	329 (49.9)	
Intermediate	70 (38.0)	114 (26.3)		74 (27.8)	130 (22.5)		36 (25.9)	131 (19.9)	
High	82 (44.6)	85 (19.6)		145 (54.5)	129 (22.3)		75 (54.0)	199 (30.2)	
Statins (%)	161 (87.5)	417 (96.3)	<0.001	200 (75.2)	461 (79.8)	0.134	88 (63.3)	504 (76.5)	0.001
Fibrates (%)	28 (15.2)	17 (3.9)	<0.001	17 (6.4)	16 (2.8)	0.012	7 (5.0)	25 (3.8)	0.497
Other (%)	7 (3.8)	15 (3.5)	0.835	55 (20.7)	96 (16.6)	0.152	46 (33.1)	123 (18.7)	<0.001
Number of drugs									
Including OTC	-	-		4 [3 - 6]	4 [2 - 6]	0.229 §	5 [3 - 7]	5 [3 - 7]	0.842 §
Excluding OTC	-	-		4 [2 - 6]	3 [2 - 5]	0.246 §	4 [2 - 6]	4 [2 - 6]	0.642 §
Genetic risk scores									
Total cholesterol	-2.7 ± 9.4	-3.7 ± 9.6	0.254	-3.7 ± 9.5	-3.5 ± 8.9	0.763	-3.3 ± 9.4	-3.8 ± 8.9	0.562
LDL-cholesterol	-2.4 ± 7.5	-2.9 ± 7.5	0.461	-2.5 ± 7.6	-2.4 ± 7.2	0.847	-2.5 ± 7.3	-2.9 ± 7.0	0.467
HDL-cholesterol	-6.5 ± 3.4	-6.7 ± 3.6	0.649	0.2 ± 7.4	-6.6 ± 3.5	0.312	-6.9 ± 3.8	-6.7 ± 3.6	0.539

BMI, body mass index; CVD, cardio vascular disease; OTC, over the counter. Results are expressed as number of participants (column %) for categorical variables and as average ± standard deviation or as median [interquartile range] for continuous variables. Between-groups comparisons performed using chi-square for categorical variables and student's t-test or Kruskal-Wallis nonparametric test (§) for continuous variables.

**Supplemental table 11:** multivariable analysis of the factors associated with dyslipidemia control as per the Swiss Group for Lipids and Atherosclerosis criteria. Data from the baseline (2003-2006), first (2009-2012) and second (2014-2017) follow-ups of the CoLaus|PsyCoLaus study, Lausanne, Switzerland.

	Baseline		First follow-up		Second follow-up	
	OR (95% CI)	p-value	OR (95% CI)	p-value	OR (95% CI)	p-value
Age (per 10 years increase)	1.17 (0.90 - 1.51)	0.231	1.05 (0.85 - 1.30)	0.627	1.18 (0.90 - 1.54)	0.221
Man vs. woman	1.70 (1.08 - 2.69)	0.022	1.15 (0.80 - 1.66)	0.458	1.59 (1.00 - 2.53)	0.050
Swiss vs. Non-Swiss	1.26 (0.81 - 1.96)	0.298	1.30 (0.90 - 1.86)	0.159	0.74 (0.45 - 1.21)	0.232
Education						
High	1 (ref.)		1 (ref.)		1 (ref.)	
Middle	1.23 (0.58 - 2.62)	0.586	1.12 (0.64 - 1.96)	0.690	0.44 (0.21 - 0.92)	0.030
Low	1.07 (0.55 - 2.05)	0.848	0.81 (0.49 - 1.32)	0.396	0.61 (0.30 - 1.22)	0.163
<i>p-value for trend</i>	0.848		0.396		0.163	
Married vs. not married	1.11 (0.71 - 1.72)	0.652	1.13 (0.81 - 1.59)	0.466	0.81 (0.52 - 1.26)	0.349
Body mass index categories						
Normal	1 (ref.)		1 (ref.)		1 (ref.)	
Overweight	0.75 (0.45 - 1.25)	0.268	0.92 (0.60 - 1.40)	0.691	0.57 (0.33 - 0.98)	0.043
Obese	1.05 (0.60 - 1.86)	0.854	0.96 (0.59 - 1.54)	0.854	0.58 (0.31 - 1.09)	0.091
<i>p-value for trend</i>	0.854		0.691		0.091	
Smoking categories						
Never	1 (ref.)		1 (ref.)		1 (ref.)	
Former	1.28 (0.78 - 2.08)	0.328	0.91 (0.62 - 1.35)	0.646	1.96 (1.19 - 3.23)	0.008
Current	1.29 (0.73 - 2.26)	0.380	0.91 (0.56 - 1.47)	0.692	1.76 (0.93 - 3.32)	0.081
<i>p-value for trend</i>	0.380		0.692		0.081	
Alcohol drinker (yes vs. no)	0.46 (0.28 - 0.77)	0.003	0.75 (0.50 - 1.12)	0.155	0.74 (0.45 - 1.23)	0.246
Antihypertensive treatment (yes vs. no)	1.50 (0.97 - 2.29)	0.065	1.48 (1.03 - 2.12)	0.036	1.04 (0.64 - 1.69)	0.862
Parental history (yes vs. no)	0.99 (0.61 - 1.59)	0.964	0.96 (0.65 - 1.42)	0.847	0.65 (0.40 - 1.06)	0.086
CVD risk (GSLA criterion)						
Low	1 (ref.)		1 (ref.)		1 (ref.)	

Intermediate	0.16 (0.09 - 0.28)	<0.001	0.19 (0.12 - 0.31)	<0.001	0.22 (0.11 - 0.42)	<0.001
High	0.08 (0.05 - 0.14)	<0.001	0.08 (0.05 - 0.13)	<0.001	0.100 (0.06 - 0.20)	<0.001
<i>p-value for trend</i>	<0.001		<0.001		<0.001	
LDL genetic risk score quartiles						
First	1 (ref.)		1 (ref.)		1 (ref.)	
Second	0.89 (0.50 - 1.58)	0.681	1.07 (0.67 - 1.69)	0.784	1.99 (1.06 - 3.74)	0.033
Third	0.54 (0.31 - 0.96)	0.034	1.11 (0.70 - 1.77)	0.645	0.93 (0.51 - 1.70)	0.815
Fourth	0.74 (0.42 - 1.30)	0.293	1.12 (0.70 - 1.77)	0.641	0.77 (0.43 - 1.38)	0.388
<i>p-value for trend</i>	0.125		0.617		0.108	
Hypolipidemic drug treatment						
Statins	0.35 (0.03 - 4.26)	0.411	1.19 (0.66 - 2.15)	0.570	2.21 (1.14 - 4.28)	0.019
Fibrates	0.06 (0.01 - 0.63)	0.019	0.29 (0.11 - 0.76)	0.012	0.61 (0.2 - 1.86)	0.389
Other	0.80 (0.28 - 2.27)	0.674	0.45 (0.25 - 0.81)	0.008	0.47 (0.25 - 0.89)	0.020

OR, odds ratio; CI, confidence interval. Results are expressed as odds ratio and (95% confidence interval). Statistical analysis using logistic regression.

**Supplemental table 12:** bivariate comparisons of the statin generation and potency among participants treated for dyslipidemia, according to controlled and uncontrolled status as per the Swiss Group for Lipids and Atherosclerosis criteria. Data from the first (2009-2012) and second (2014-2017) follow-ups of the CoLaus|PsyCoLaus study, Lausanne, Switzerland. Analysis restricted to participants taking statins.

	First follow-up			Second follow-up		
	Uncontrolled	Controlled	p-value	Uncontrolled	Controlled	p-value
N	<b>200</b>	<b>461</b>		<b>88</b>	<b>502</b>	
Generation			0.003			0.026
First	62 (31.0)	87 (18.9)		21 (23.9)	65 (13.0)	
Second	122 (61.0)	331 (71.8)		55 (62.5)	366 (72.9)	
Third	16 (8.0)	43 (9.3)		12 (13.6)	71 (14.1)	
Potency §			0.002			0.005
Low	62 (31.0)	87 (18.9)		21 (23.9)	65 (13.0)	
Intermediate	70 (35.0)	169 (36.7)		30 (34.1)	143 (28.5)	
High	68 (34.0)	205 (44.5)		37 (42.1)	294 (58.6)	
N	<b>186</b>	<b>436</b>		<b>77</b>	<b>442</b>	
Potency §			0.386			0.199
Low	94 (50.5)	198 (45.4)		34 (44.2)	155 (35.1)	
Intermediate	75 (40.3)	202 (46.3)		28 (36.4)	208 (47.1)	
High	17 (9.1)	36 (8.3)		15 (19.5)	79 (17.9)	

§, not considering posology; †, considering posology. Results are expressed as number of participants (column %). Between-groups comparisons performed using chi-square.

**Supplemental table 13:** multivariable analysis of the factors associated with dyslipidemia control as per the Swiss Group for Lipids and Atherosclerosis criteria. Data from the first (2009-2012) and second (2014-2017) follow-ups of the CoLaus|PsyCoLaus study, Lausanne, Switzerland. Analysis taking into account statin generation.

	First follow-up		Second follow-up	
	OR (95% CI)	p-value	OR (95% CI)	p-value
Age (per 10 years increase)	1.20 (0.93 - 1.56)	0.159	1.04 (0.73 - 1.48)	0.823
Man vs. woman	1.59 (1.03 - 2.45)	0.037	2.23 (1.23 - 4.02)	0.008
Swiss vs. Non-Swiss	1.25 (0.81 - 1.92)	0.315	0.80 (0.43 - 1.47)	0.468
Education				
High	1 (ref.)		1 (ref.)	
Middle	1.09 (0.54 - 2.19)	0.805	0.85 (0.32 - 2.22)	0.733
Low	0.83 (0.46 - 1.52)	0.551	1.13 (0.46 - 2.74)	0.791
<i>p-value for trend</i>	0.551		0.791	
Married vs. not married	1.24 (0.84 - 1.84)	0.287	0.97 (0.55 - 1.71)	0.917
Body mass index categories				
Normal	1 (ref.)		1 (ref.)	
Overweight	0.87 (0.53 - 1.45)	0.603	0.61 (0.29 - 1.28)	0.191
Obese	0.86 (0.49 - 1.50)	0.591	0.47 (0.21 - 1.06)	0.068
<i>p-value for trend</i>	0.591		0.068	
Smoking categories				
Never	1 (ref.)		1 (ref.)	
Former	0.91 (0.58 - 1.44)	0.688	1.79 (0.96 - 3.36)	0.068
Current	0.96 (0.54 - 1.72)	0.891	1.22 (0.56 - 2.66)	0.625
<i>p-value for trend</i>				
Alcohol drinker (yes vs. no)	0.67 (0.41 - 1.08)	0.099	0.95 (0.51 - 1.78)	0.882
AntiHTA ttt (yes vs. no)	1.19 (0.77 - 1.84)	0.438	1.11 (0.60 - 2.05)	0.733
Parental history (yes vs. no)	0.98 (0.61 - 1.58)	0.945	0.54 (0.28 - 1.03)	0.060
CVD risk (GSLA criterion)				
Low	1 (ref.)		1 (ref.)	
Intermediate	0.18 (0.10 - 0.32)	<0.001	0.19 (0.07 - 0.49)	0.001
High	0.05 (0.03 - 0.10)	<0.001	0.06 (0.02 - 0.14)	<0.001
<i>p-value for trend</i>	<0.001		<0.001	
LDL genetic risk score quartiles				
First	1 (ref.)		1 (ref.)	
Second	1.04 (0.61 - 1.76)	0.888	2.95 (1.29 - 6.72)	0.010
Third	1.21 (0.70 - 2.08)	0.492	1.06 (0.51 - 2.19)	0.881
Fourth	1.29 (0.75 - 2.20)	0.359	1.18 (0.57 - 2.47)	0.653
<i>p-value for trend</i>	0.298		0.666	
Number of drugs (per 1 unit)	1.14 (1.05 - 1.25)	0.003	1.16 (1.04 - 1.29)	0.008
Statins generation				
First	1 (ref.)		1 (ref.)	
Second	2.54 (1.61 - 4.01)	<0.001	4.17 (2.07 - 8.42)	<0.001
Third	2.59 (1.19 - 5.61)	0.016	3.44 (1.31 - 8.99)	0.012

<i>p-value for trend</i>	0.016		0.012	
Fibrates	NC		NC	
Other	0.62 (0.27 - 1.43)	0.263	1.09 (0.36 - 3.3)	0.880

OR, odds ratio; CI, confidence interval; antiHTA ttt, antihypertensive drug treatment; NC, not computable. Results are expressed as odds ratio and (95% confidence interval). Statistical analysis by logistic regression.

**Supplemental table 14:** multivariable analysis of the factors associated with dyslipidemia control as per the Swiss Group for Lipids and Atherosclerosis criteria. Data from the first (2009-2012) and second (2014-2017) follow-ups of the CoLaus|PsyCoLaus study, Lausanne, Switzerland. Analysis taking into account statin potency, but not considering posology.

	First follow-up		Second follow-up	
	OR (95% CI)	p-value	OR (95% CI)	p-value
Age (per 10 years increase)	1.22 (0.94 - 1.59)	0.127	1.06 (0.74 - 1.51)	0.748
Man vs. woman	1.57 (1.02 - 2.43)	0.040	2.13 (1.17 - 3.87)	0.013
Swiss vs. Non-Swiss	1.24 (0.81 - 1.92)	0.322	0.82 (0.45 - 1.52)	0.533
Education				
High	1 (ref.)		1 (ref.)	
Middle	1.07 (0.53 - 2.14)	0.856	0.77 (0.29 - 2.04)	0.601
Low	0.83 (0.45 - 1.50)	0.531	1.05 (0.43 - 2.58)	0.914
<i>p-value for trend</i>	0.531		0.914	
Married vs. not married	1.26 (0.85 - 1.86)	0.259	1.00 (0.57 - 1.76)	0.995
Body mass index categories				
Normal	1 (ref.)		1 (ref.)	
Overweight	0.89 (0.54 - 1.47)	0.637	0.64 (0.31 - 1.35)	0.245
Obese	0.85 (0.49 - 1.49)	0.570	0.49 (0.22 - 1.10)	0.085
<i>p-value for trend</i>	0.570		0.085	
Smoking categories				
Never	1 (ref.)		1 (ref.)	
Former	0.90 (0.57 - 1.42)	0.653	1.83 (0.97 - 3.46)	0.061
Current	0.96 (0.54 - 1.72)	0.895	1.18 (0.53 - 2.58)	0.688
<i>p-value for trend</i>	0.895		0.688	
Alcohol drinker (yes vs. no)	0.67 (0.42 - 1.09)	0.106	0.90 (0.48 - 1.70)	0.750
AntiHTA ttt (yes vs. no)	1.20 (0.77 - 1.85)	0.417	1.09 (0.59 - 2.02)	0.781
Parental history (yes vs. no)	0.98 (0.61 - 1.58)	0.942	0.52 (0.27 - 0.99)	0.049
CVD risk				
Low	1 (ref.)		1 (ref.)	
Intermediate	0.17 (0.10 - 0.31)	<0.001	0.20 (0.08 - 0.51)	0.001
High	0.05 (0.03 - 0.10)	<0.001	0.06 (0.02 - 0.15)	<0.001
<i>p-value for trend</i>	<0.001		<0.001	
LDL genetic risk score quartiles				
First	1 (ref.)		1 (ref.)	
Second	1.05 (0.62 - 1.79)	0.852	2.74 (1.20 - 6.24)	0.016
Third	1.19 (0.70 - 2.05)	0.519	1.01 (0.49 - 2.10)	0.982
Fourth	1.27 (0.74 - 2.18)	0.380	1.12 (0.53 - 2.35)	0.763
<i>p-value for trend</i>	0.329		0.586	
Number of drugs (per 1 unit)	1.14 (1.04 - 1.25)	0.003	1.15 (1.03 - 1.28)	0.012
Statins potency, no posology				
Low	1 (ref.)		1 (ref.)	
Intermediate	2.14 (1.30 - 3.54)	0.003	2.90 (1.35 - 6.24)	0.007
High	3.01 (1.82 - 4.98)	<0.001	5.13 (2.43 - 10.8)	<0.001

<i>p-value for trend</i>	<0.001		<0.001	
Fibrates	NC		NC	
Other	0.58 (0.25 - 1.34)	0.202	0.91 (0.30 - 2.76)	0.871

OR, odds ratio; CI, confidence interval; antiHTA ttt, antihypertensive drug treatment; NC, not computable. Results are expressed as odds ratio and (95% confidence interval). Statistical analysis

**Supplemental table 15:** multivariable analysis of the factors associated with dyslipidemia control as per the Swiss Group for Lipids and Atherosclerosis criteria. Data from the first (2009-2012) and second (2014-2017) follow-ups of the CoLaus|PsyCoLaus study, Lausanne, Switzerland. Analysis taking into account statin potency and posology

	First follow-up		Second follow-up	
	OR (95% CI)	p-value	OR (95% CI)	p-value
Age (per 10 years increase)	1.25 (0.96 - 1.63)	0.102	1.10 (0.76 - 1.60)	0.619
Man vs. woman	1.61 (1.04 - 2.51)	0.034	1.82 (0.97 - 3.42)	0.062
Swiss vs. Non-Swiss	1.25 (0.80 - 1.94)	0.321	0.81 (0.42 - 1.54)	0.515
Education				
High	1 (ref.)		1 (ref.)	
Middle	1.08 (0.53 - 2.19)	0.839	0.47 (0.16 - 1.40)	0.175
Low	0.80 (0.43 - 1.46)	0.465	0.65 (0.23 - 1.79)	0.402
p-value for trend	0.465		0.402	
Married vs. not married	1.33 (0.89 - 2.00)	0.163	1.06 (0.59 - 1.92)	0.842
Body mass index categories				
Normal	1 (ref.)		1 (ref.)	
Overweight	0.86 (0.51 - 1.43)	0.554	0.66 (0.31 - 1.40)	0.283
Obese	0.87 (0.49 - 1.55)	0.641	0.65 (0.28 - 1.48)	0.302
p-value for trend	0.641		0.302	
Smoking categories				
Never	1 (ref.)		1 (ref.)	
Former	0.95 (0.60 - 1.52)	0.836	1.72 (0.89 - 3.34)	0.109
Current	1.05 (0.58 - 1.89)	0.868	1.20 (0.52 - 2.78)	0.672
p-value for trend	0.868		0.672	
Alcohol drinker (yes vs. no)	0.67 (0.41 - 1.10)	0.113	0.93 (0.48 - 1.8)	0.831
AntiHTA ttt (yes vs. no)	1.35 (0.86 - 2.11)	0.187	1.20 (0.63 - 2.28)	0.575
Parental history (yes vs. no)	0.94 (0.58 - 1.52)	0.805	0.67 (0.34 - 1.33)	0.251
CVD risk				
Low	1 (ref.)		1 (ref.)	
Intermediate	0.19 (0.10 - 0.34)	<0.001	0.23 (0.09 - 0.59)	0.002
High	0.06 (0.03 - 0.11)	<0.001	0.07 (0.03 - 0.18)	<0.001
p-value for trend	<0.001		<0.001	
LDL genetic score quartiles				
First	1 (ref.)		1 (ref.)	
Second	1.07 (0.62 - 1.85)	0.800	1.89 (0.81 - 4.39)	0.141
Third	1.34 (0.77 - 2.34)	0.299	0.83 (0.38 - 1.79)	0.634
Fourth	1.25 (0.72 - 2.17)	0.422	1.00 (0.46 - 2.17)	0.997
p-value for trend	0.313		0.514	
Number of drugs (per 1 unit)	1.11 (1.01 - 1.21)	0.028	1.16 (1.02 - 1.30)	0.019
Statins potency, posology				
Low	1 (ref.)		1 (ref.)	
Intermediate	1.36 (0.91 - 2.06)	0.137	1.66 (0.88 - 3.11)	0.115
High	1.67 (0.81 - 3.45)	0.168	2.07 (0.89 - 4.82)	0.092

p-value for trend	0.168		0.092	
Fibrates	NC		NC	
Other	0.75 (0.31 - 1.84)	0.529	1.64 (0.43 - 6.28)	0.473

OR, odds ratio; CI, confidence interval; antiHTA ttt, antihypertensive drug treatment; NC, not computable. Results are expressed as odds ratio and (95% confidence interval). Statistical analysis by logistic regression.

**Supplemental table 16:** p-values for the different SNPs associated with statin effect regarding dyslipidemia control, according to the European Society of Cardiology / European Atherosclerosis Society criteria, and the Swiss Group for Lipids and Atherosclerosis strict and near control criteria. Data from the baseline (2003-2006), first (2009-2012) and second (2014-2017) follow-ups of the CoLaus|PsyCoLaus study, Lausanne, Switzerland.

Gene	SNP	ESC/EAS			GSLA strict control			GSLA near control		
		Baseline	1 <sup>st</sup> FU	2 <sup>nd</sup> FU	Baseline	First FU	2 <sup>nd</sup> FU	Baseline	First FU	2 <sup>nd</sup> FU
<i>ABCB1</i>	rs1128503	0.728	0.896	<b>0.040</b>	0.969	0.794	0.167	0.481	0.539	0.513
<i>ABCB1</i>	rs1922242	0.910	0.369	0.147	0.648	0.360	<b>0.026</b>	0.902	0.598	0.474
<i>ABCB1</i>	rs2032582	0.835	0.492	0.156	0.887	0.673	0.150	0.387	0.553	0.454
<i>ABCB1</i>	rs3789244	0.728	0.901	<b>0.040</b>	0.985	0.779	0.167	0.481	0.539	0.513
<i>ABCG2/BCRP</i>	rs2199936	0.485	0.861	0.444	0.649	0.381	0.141	0.452	0.295	0.507
<i>ABCG2/BCRP</i>	rs2231137	0.094	0.966	0.292	1.000	0.817	0.906	0.671	0.897	0.584
<i>ABCG2/BCRP</i>	rs2231142	0.411	0.894	0.444	0.592	0.310	0.141	0.452	0.329	0.507
<i>ABCG8</i>	rs11887534	0.541	0.671	<b>0.002</b>	0.945	0.210	0.196	1.000	<b>0.031</b>	0.603
<i>APOA1</i>	rs5069	0.232	0.858	1.000	0.072	0.245	1.000	0.501	0.219	0.680
<i>APOA1</i>	rs670	0.793	0.314	0.125	0.735	0.378	0.386	0.456	0.372	0.833
<i>APOA5</i>	rs662799	0.238	0.052	0.092	0.712	0.792	0.125	0.396	0.437	1.000
<i>APOC1</i>	rs4420638	0.847	0.089	0.567	0.514	0.697	0.085	0.092	0.208	0.503
<i>APOE</i>	rs429358	1.000	0.077	0.502	0.308	0.576	0.784	0.105	1.000	1.000
<i>APOE</i>	rs445925	0.718	0.623	0.788	1.000	0.141	0.856	0.414	0.606	1.000
<i>APOE</i>	rs449647	0.461	0.888	0.207	0.919	0.870	0.617	0.708	0.642	1.000
<i>APOE</i>	rs71352238	0.856	0.269	0.489	0.358	0.952	0.642	0.056	0.761	0.791
<i>APOE</i>	rs7412	0.246	0.154	0.145	0.792	0.694	0.803	0.702	0.347	1.000
<i>CETP</i>	rs5882	0.683	0.749	0.932	0.446	0.773	0.211	0.371	0.105	0.319
<i>CETP</i>	rs708272	0.088	0.841	0.459	0.593	0.580	0.247	0.785	0.182	0.453
<i>CLMN</i>	rs8014194	0.304	0.477	0.382	0.339	0.543	0.636	0.138	0.154	0.527
<i>CYP2C9</i>	rs1057910	0.798	0.064	0.060	0.392	0.060	0.163	0.393	0.064	0.302
<i>CYP2D6</i>	rs3892097	0.781	0.540	0.800	0.328	0.641	0.601	0.619	0.798	0.242
<i>CYP3A4</i>	rs2740574	0.394	0.305	0.430	0.805	0.729	0.220	0.165	0.473	0.703

<i>CYP3A4</i>	rs55951658	NC	NC	NC	NC	NC	NC	NC	NC	NC
<i>CYP7A1</i>	rs3808607	<b>0.043</b>	0.573	0.267	<b>0.017</b>	0.153	0.601	0.647	0.149	0.766
<i>ESR1</i>	rs2234693	<b>0.026</b>	0.938	1.000	0.613	0.868	0.119	0.816	0.797	0.757
<i>ESR1</i>	rs9340799	0.139	0.899	0.569	0.420	0.778	0.156	<b>0.036</b>	0.390	0.619
<i>HMGCR</i>	rs12916	0.598	0.406	0.626	0.584	0.912	0.651	0.802	0.139	0.413
<i>HMGCR</i>	rs17238540	0.833	0.552	0.713	0.153	0.901	0.537	1.000	0.450	0.430
<i>HMGCR</i>	rs17244841	0.666	0.498	0.705	0.151	1.000	0.536	1.000	0.442	0.424
<i>HMGCR</i>	rs17671591	0.171	0.947	0.158	0.337	0.388	0.634	0.590	0.124	0.737
<i>HMGCR</i>	rs5908	0.102	0.507	0.632	1.000	1.000	0.466	0.271	1.000	1.000
<i>KIF6</i>	rs20455	0.307	<b>0.029</b>	0.209	0.602	0.323	0.609	0.094	0.124	0.058
<i>LDLR</i>	rs5925	0.408	0.311	<b>0.015</b>	0.206	0.281	0.348	0.553	0.889	0.935
<i>LPA</i>	rs10455872	0.266	0.659	0.332	<b>0.021</b>	0.340	1.000	1.000	0.461	0.452
<i>LPL</i>	rs328	0.372	0.397	0.674	0.186	0.654	0.835	0.087	1.000	0.878
<i>PCSK9</i>	rs17111584	0.462	0.359	0.054	1.000	0.197	1.000	0.380	<b>0.027</b>	1.000
<i>PON1</i>	rs662	0.069	0.637	0.911	0.130	0.407	0.684	0.730	1.000	0.749
<i>SCAP</i>	rs12487736	<b>0.031</b>	0.145	0.312	0.226	0.525	0.840	<b>0.032</b>	0.711	0.413
<i>SCCO1B1</i>	rs2306283	0.076	0.429	0.384	0.533	0.404	0.902	0.719	0.557	0.126
<i>SLCO1B1</i>	rs11045819	0.914	0.768	0.068	<b>0.020</b>	0.841	0.250	0.466	<b>0.044</b>	0.728
<i>SLCO1B1</i>	rs4149015	0.572	0.819	0.808	0.895	0.084	0.303	0.758	0.438	<b>0.039</b>
<i>SLCO1B1</i>	rs4149056	0.112	0.888	<b>0.011</b>	0.675	0.574	<b>0.027</b>	0.856	<b>0.045</b>	0.356
<i>SOD2</i>	rs4880	0.255	0.611	0.460	0.182	0.740	0.837	0.228	0.925	0.214
<i>TLR4</i>	rs4986790	0.654	0.873	<b>0.013</b>	0.727	0.124	0.662	1.000	0.166	1.000
<i>ABCB1</i>	rs1045642	0.789	0.500	0.619	0.877	0.160	0.350	0.461	0.578	0.269

NC, not computable as all participants were homozygous. FU, follow-up. Statistical analysis performed using Fisher's exact test. Values <0.05 are indicated in bold.

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