

Table S1. Primers used on cDNA IMR90 iPS-CMs aged day 30 and day 90.

<b>mRNA</b>	<b>Primer Sequence</b>
Phosphodiesterase 1A (PDE1A)	<i>Fwd:</i> TTGGCTTCTACCTTTACACGGA <i>Rev:</i> AGGGCAAATACATCGAAAGACC
Phosphodiesterase 1B (PDE1B)	<i>Fwd:</i> ATGAGACACGGCAAATCTTGG <i>Rev:</i> TGCACAATGCTTCGGAACCTG
Phosphodiesterase 1C (PDE1C)	<i>Fwd:</i> GATGTGGACAAGTGGTCCTTTG <i>Rev:</i> GGGGATCTTGAAACGGCTGA
Phosphodiesterase 2A (PDE2A)	<i>Fwd:</i> CCTCCTGTGACCTCTCTGAC-C <i>Rev:</i> TGAACCTTGTGGGACACCTT-GG
Phosphodiesterase 3A (PDE3A)	<i>Fwd:</i> TCACAGGGCCTTAACTTTAC-AC <i>Rev:</i> GGAGCAAGAATTGGTTTGT-CC
Phosphodiesterase 3B (PDE3B)	<i>Fwd:</i> CCTCAGGCAGTTTATACA-ATG <i>Rev:</i> TGCTTCTTCATCTCCCTGCT-C
Natriuretic Peptide Receptor 1 (NPR1)	<i>Fwd:</i> CTTCGGTGTCAAGGACGAGTA <i>Rev:</i> GGTAGGCGTAGAGCATGAGC
Natriuretic Peptide Receptor 2 (NPR2)	<i>Fwd:</i> TGACCCCGACCTGCTGTTA <i>Rev:</i> CGAACCAGGGTACGATAATGG
$\beta_3$ -adrenergic receptor (ADRB3)	<i>Fwd:</i> GACCAACGTGTTTCGTGACTTC <i>Rev:</i> GCACAGGGTTTCGATGCTG
Human glyceraldehyde 3-phosphate dehydrogenase (hGAPDH)	<i>Fwd:</i> AATCCCATCACCATCTTCCA <i>Rev:</i> TGGACTCCACGACGTACTCA

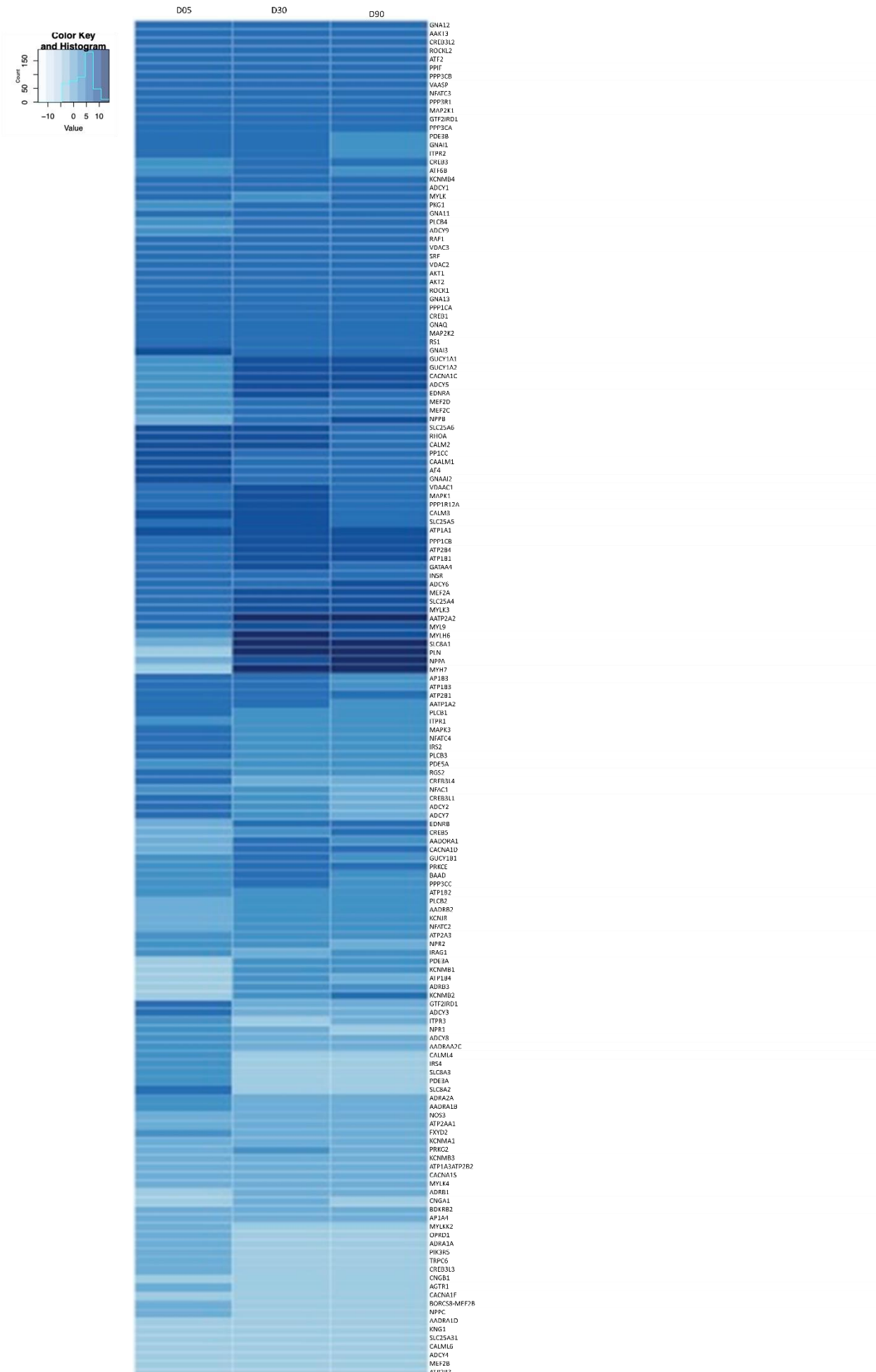


Figure S1. Heatmap of gene expression of genes involved in the cGMP-PKG pathway in induced pluripotent stem cell cardiomyocytes (iPS-CM) as they were cultured for 5, 30 and 90 days.

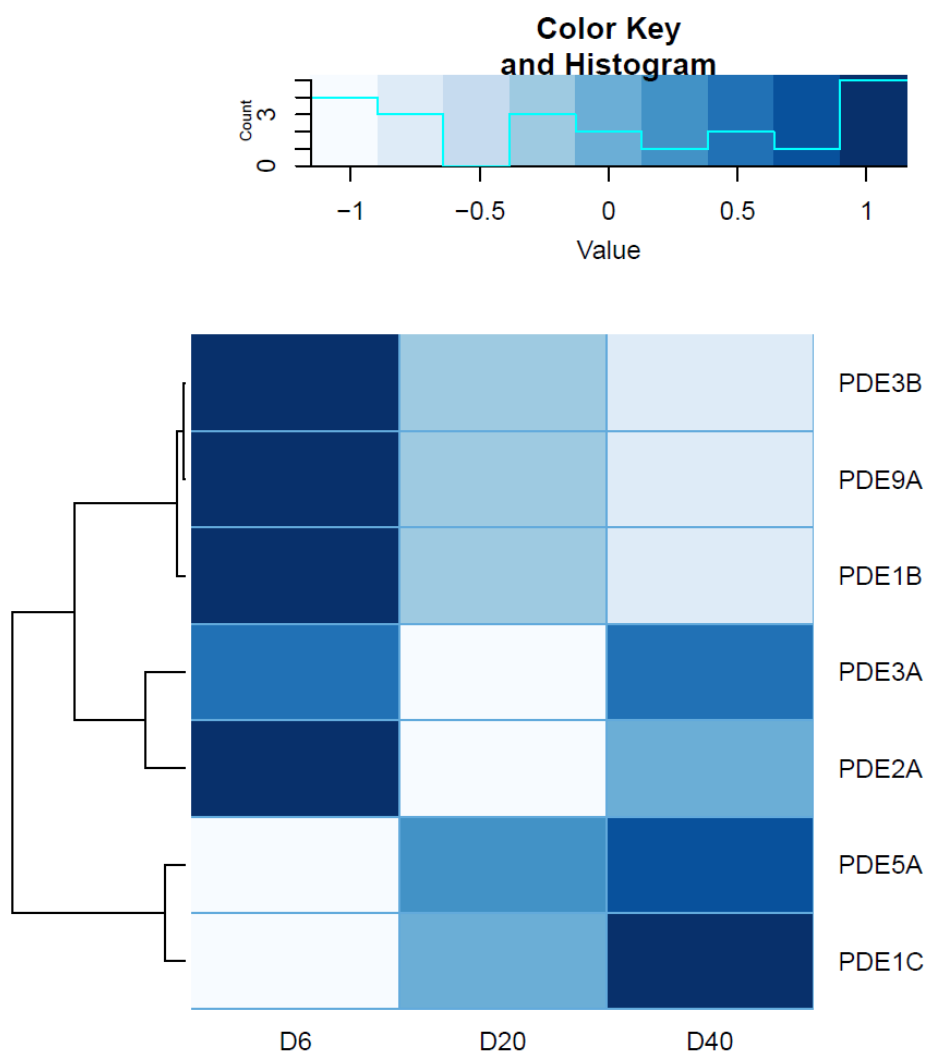


Figure S2. Expression of various PDEs in H9 hiPS-CMs as revealed by RNA-seq.

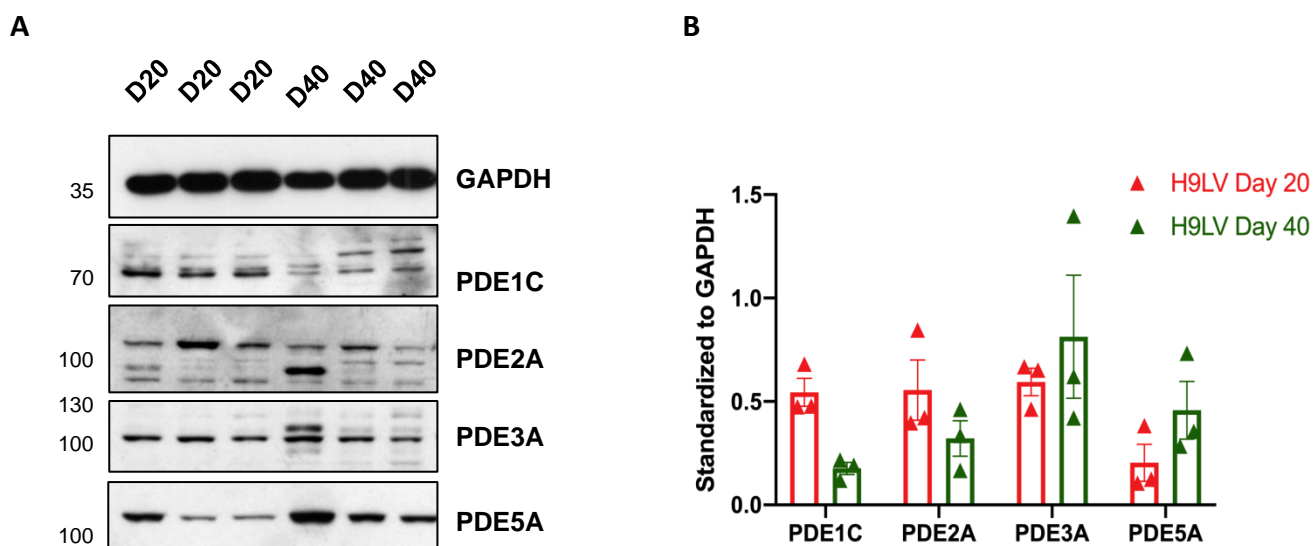


Figure S3. Expression of various PDEs in H9 hiPS-CMs at early and late stage in culture. A. Western blot of PDEs at Day 20 and Day 40 in culture; B. Quantification band density of blots in A.

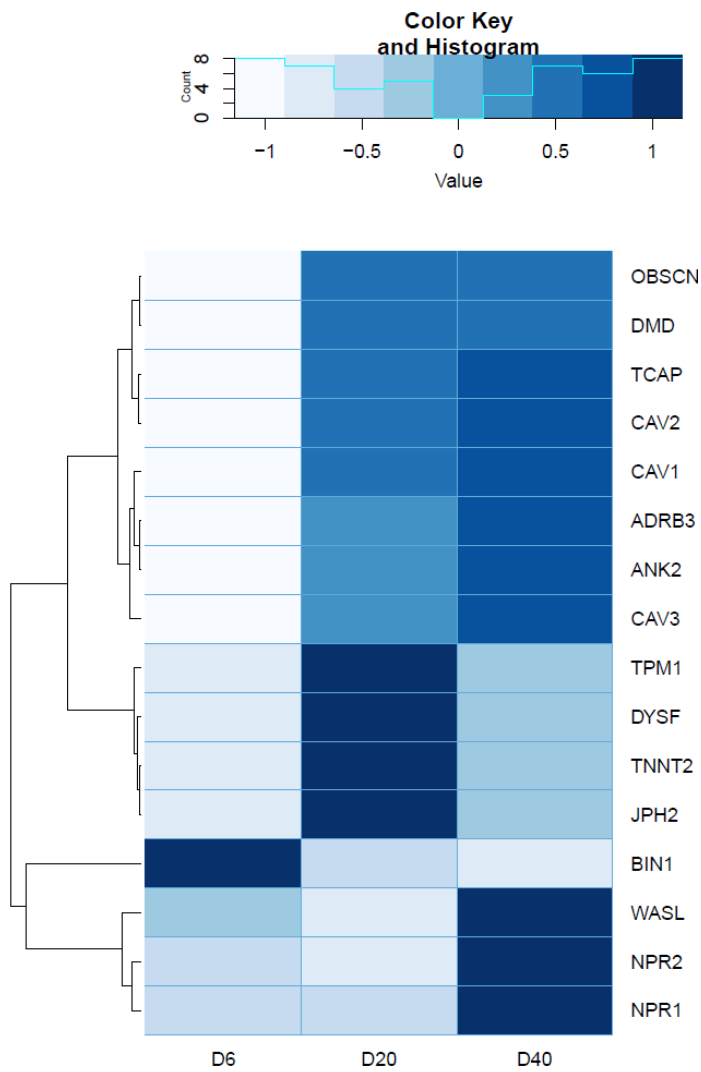


Figure S4. Expression of genes relevant to myocyte maturation in H9 iPS-CMs as revealed by RNA-seq.

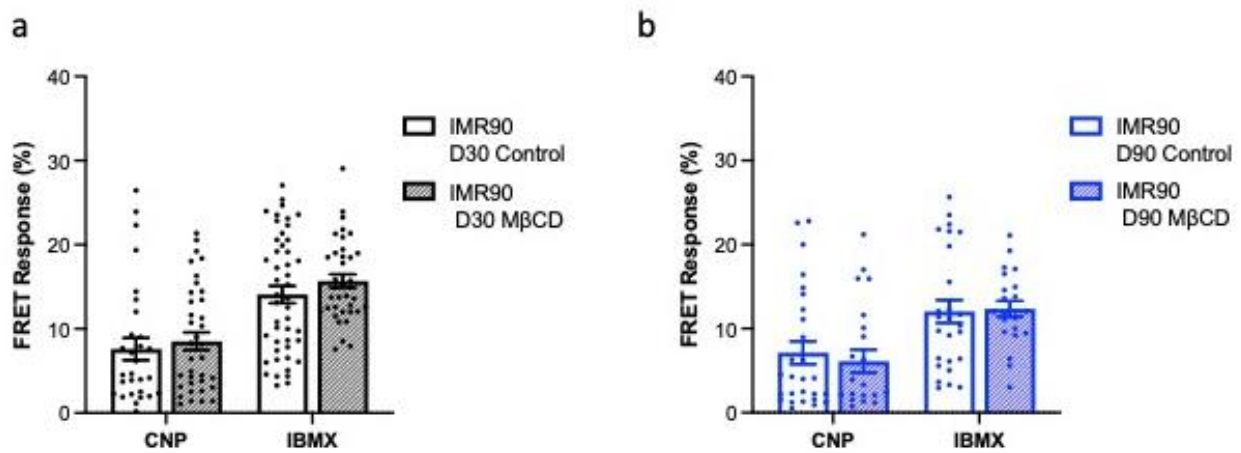


Figure S5. cGMP levels in control and caveolae depleted (MβCD) IMR90 iPS-CMs aged (a) day 30 and (b) day 90 upon C-type peptide (CNP) stimulation and general phosphodiesterase inhibition (IBMX).