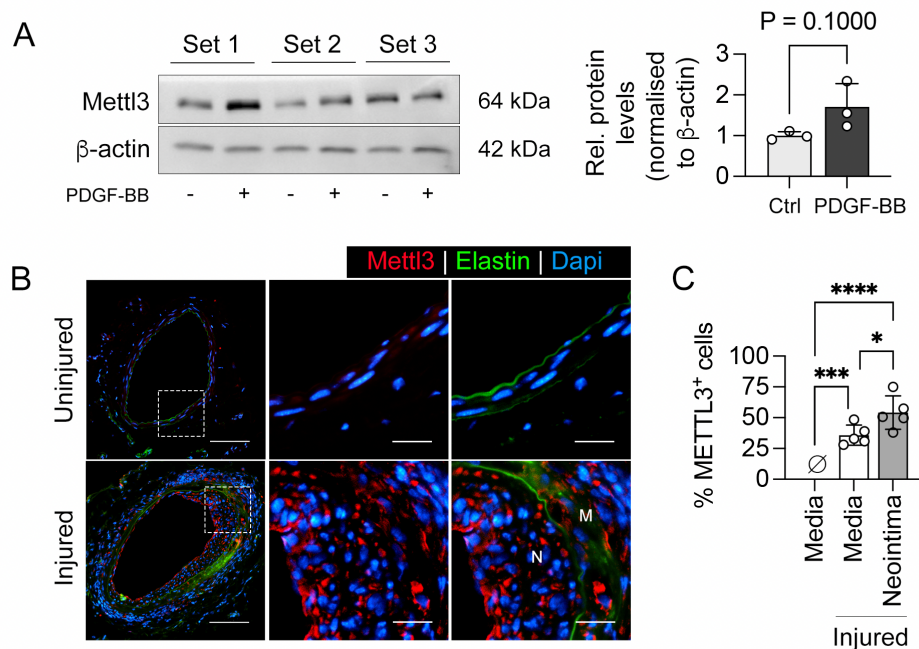
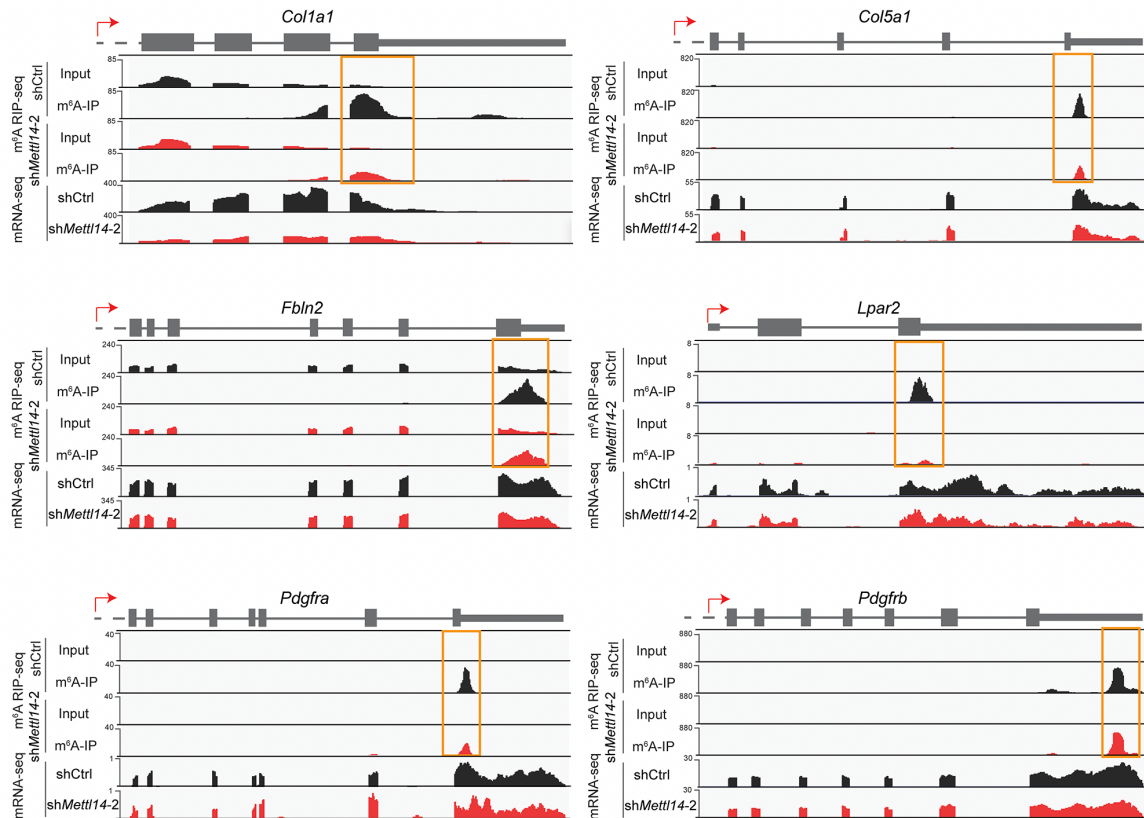


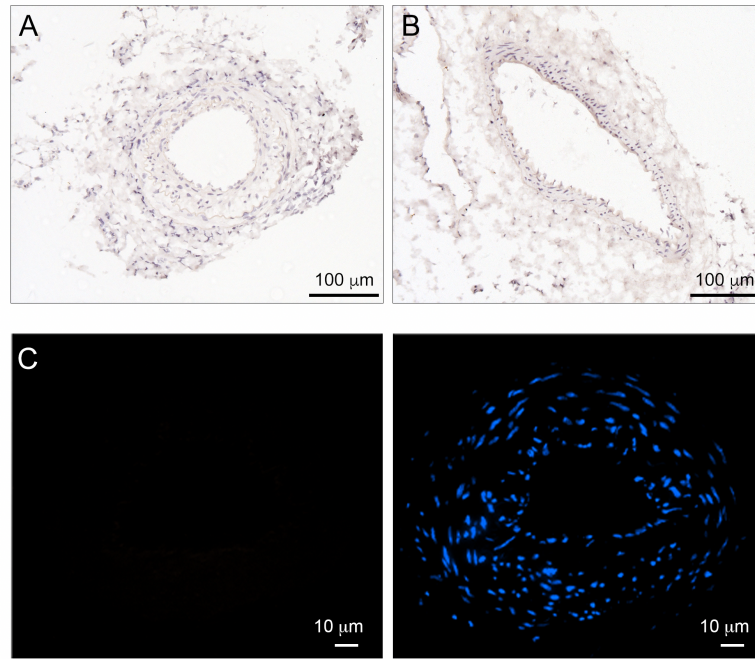
SUPPLEMENTARY FIGURES



Supplemental Figure 1. Mettl3 expression is increased in injury-induced dedifferentiation of vascular smooth muscle cells. (A) Representative Western blot of Mettl3 in murine VSMCs treated without and with PDGF-BB for 72 h. $n = 3$ biologically independent repeats. Quantification shown on the right. (B) Representative immunofluorescent Mettl3 stained images of murine femoral arteries 21 days following femoral wire injury. Mettl3, red; elastin, green; Dapi, blue. Scale bar, 100 μ m. (C) Quantification of Mettl3-positive nuclei in the media of uninjured femoral artery, media and neointima of injured femoral artery. $n = 5$ biologically independent samples. * $P < 0.05$, *** $P < 0.005$, **** $P < 0.001$; paired Student's t -test (A); one-way ANOVA with Tukey's multiple comparisons test (C). Error bars represent mean $\pm$ SD.



Supplemental Figure 2. Downregulation of m⁶A-modified genes involved in VSMC plasticity. Integrative Genome Viewer plots displaying m⁶A peaks on *Col1a1*, *Col5a1*, *Fbln2*, *Lpar2*, *Pdgfra* and *Pdgfrb* mRNAs and the corresponding mRNA expression data in shMettl14-2 treated primary mouse VSMCs (red) and control (black). The m⁶A peaks near stop codons of genes are indicated in the orange boxes.



Supplemental Figure 3. Secondary antibody only control sections. Representative images of sections stained with (A) anti-mouse or (B) anti-rabbit HP conjugated secondary antibodies alone. Dapi counterstained with hematoxylin. (C) Representative image of sections stained with goat anti-rabbit IgG Alexa Fluor 488 secondary antibody only. Nuclear stained with Dapi.

Supplemental Table 1: Genes with significantly different m6A peaks between Mettl14**knckdown VSMCs and control**

gene_name	peak coordinate	log2FoldChange	pvalue
<i>Zcchc2</i>	1:105991309-105991509	-1.079836834	0.04450
<i>Zcchc2</i>	1:106030880-106031221	0.734970429	0.04397
<i>Sulf1</i>	1:12692810-12693010	1.404146362	0.02915
<i>Rab7b</i>	1:131712256-131712553	0.901656518	0.02695
<i>Abl2</i>	1:156641592-156641851	-0.69199324	0.03849
<i>Ildr2</i>	1:166311949-166312149	1.82690805	0.02395
<i>Gm7694</i>	1:170301307-170301507	1.545151542	0.04893
<i>Ndufs2</i>	1:171247368-171247583	1.315055895	0.01136
<i>Gulp1</i>	1:44729270-44729470	1.386517508	0.02069
<i>Mettl21a</i>	1:64607685-64607885	0.858602427	0.03148
<i>Tns1</i>	1:73914034-73914538	-0.73867525	0.00368
<i>Tuba4a</i>	1:75216283-75216505	-0.585966585	0.04224
<i>Per2</i>	1:91442281-91442481	-1.556242403	0.00044
<i>Mterf4</i>	1:93301538-93301779	0.896475457	0.00966
<i>Tmtc2</i>	10:105413272-105413472	0.89327575	0.02773
<i>Atxn7l3b</i>	10:112927440-112927666	0.734164113	0.01155
<i>Frs2</i>	10:117074529-117074745	-0.613304437	0.03581
<i>Plagl1</i>	10:13128752-13128952	-1.130596229	0.01564
<i>Ctgf</i>	10:24597525-24597751	-0.616284328	0.03472
<i>Mfsd4b4</i>	10:39891555-39891755	1.268875369	0.01766
<i>Mcm9</i>	10:53537348-53537548	1.707765229	0.01204
<i>Hk1</i>	10:62269366-62269598	-0.681403588	0.01936
<i>Trappc10</i>	10:78189410-78189610	2.395777154	0.00177
<i>2610008E11Rik</i>	10:79067685-79067909	0.827965656	0.00598
<i>Mbd3</i>	10:80392739-80392939	-0.822076513	0.04331
<i>Mob3a</i>	10:80691253-80691453	-0.88986562	0.04079
<i>Zbtb7a</i>	10:81144835-81145035	-0.718484347	0.04634
<i>Nuak1</i>	10:84371240-84371468	-0.645558973	0.04642
<i>Nuak1</i>	10:84373894-84374119	-0.597019744	0.03999
<i>Uhrf1bp1l</i>	10:89813493-89813693	1.032148516	0.01103
<i>Kat2a</i>	11:100704875-100705128	0.989704683	0.01089
<i>Itgb3</i>	11:104643619-104643819	-0.986396781	0.03942
<i>Slc16a6</i>	11:109455576-109455776	1.768951283	0.00174
<i>Cant1</i>	11:118407632-118408053	-0.653761402	0.03915
<i>C1qtnf1</i>	11:118448247-118448480	0.634485621	0.04665
<i>Gm11747</i>	11:118448247-118448480	0.634485621	0.04665
<i>Hexdc</i>	11:121206506-121206706	0.845574107	0.04708
<i>Sertad2</i>	11:20647973-20648173	-1.018253662	0.01468
<i>Morc2a</i>	11:3689633-3689918	0.947599259	0.02955
<i>Lif</i>	11:4271690-4271977	-1.186955642	0.00538
<i>Kremen1</i>	11:5192274-5192474	-1.625227309	0.01214
<i>Gm26551</i>	11:52167787-52167987	-1.220341703	0.04946
<i>Aff4</i>	11:53415398-53415637	-0.91478578	0.03137
<i>Slc36a1</i>	11:55233627-55233859	-1.021009062	0.01978
<i>2610507I01Rik</i>	11:59199811-59200161	0.686642347	0.01941
<i>Rai1</i>	11:60185462-60185690	-1.092808629	0.00803
<i>Mmgt2</i>	11:62664952-62665152	0.987521299	0.02639
<i>Borcs6</i>	11:69060109-69060309	-1.094514061	0.02178
<i>9330160F10Rik</i>	11:69060109-69060309	-1.094514061	0.02178
<i>Nlgn2</i>	11:69825215-69825459	-1.073879342	0.03899
<i>Derl2</i>	11:71010043-71010346	-0.785563577	0.01983
<i>Cyb5d2</i>	11:72778119-72778353	-1.334496149	0.00637
<i>Shpk</i>	11:73223943-73224143	1.17756116	0.02694
<i>Rnf135</i>	11:80198718-80198965	-0.865152039	0.04404
<i>Pthr2</i>	11:86689618-86689867	0.714389054	0.01870
<i>Col1a1</i>	11:94951491-94951691	-1.232322499	0.00038
<i>Nfe2l1</i>	11:96818332-96818532	-1.858983298	8.1356e-09
<i>Nfe2l1</i>	11:96820144-96820344	-0.97073669	0.00347
<i>Nfe2l1</i>	11:96827365-96827565	-1.157681795	0.00101

<i>Socs7</i>	11:97362843-97363043	-1.599207247	0.00980
<i>Otub2</i>	12:103404415-103404628	1.020977476	0.04227
<i>Bag5</i>	12:111710074-111710293	0.721851949	0.04075
<i>Kif26a</i>	12:112176174-112176417	1.538218509	0.00552
<i>Trib2</i>	12:15793835-15794075	0.677732499	0.04480
<i>Fam110c</i>	12:31074462-31074662	-1.336925754	0.03176
<i>Snx13</i>	12:35144172-35144383	0.917921633	0.03345
<i>BC068281</i>	12:4850884-4851084	1.152364572	0.03596
<i>Six4</i>	12:73103644-73103888	1.088293124	0.01474
<i>Plekhg3</i>	12:76576027-76576227	-0.923473756	0.02855
<i>Ylpm1</i>	12:85029405-85029617	0.614020945	0.04683
<i>Irf2bpl</i>	12:86881676-86882024	-0.597104537	0.04163
<i>Ndufs4</i>	13:114361318-114361518	1.1826716	0.04027
<i>Yae1d1</i>	13:17989418-17989618	-1.119475406	0.01321
<i>Tubb2a</i>	13:34074455-34074701	-0.734524881	0.03376
<i>Hnrnpa0</i>	13:58127482-58127682	-1.006013605	0.00447
<i>Cdc14b</i>	13:64196351-64196551	1.472219069	0.04113
<i>Tert</i>	13:73628386-73628586	1.143513976	0.03895
<i>Zfp72</i>	13:74371593-74371793	-1.608530868	0.00726
<i>Fbxl3</i>	14:103083140-103083340	-0.728933051	0.04429
<i>Samd8</i>	14:21775145-21775444	-0.898496491	0.03357
<i>Btd</i>	14:31667157-31667434	0.97499686	0.00637
<i>9930012K11Rik</i>	14:70154569-70154769	2.176813845	0.00274
<i>Gm9174</i>	14:70360315-70360548	-1.055104353	0.02327
<i>Flnb</i>	14:7951317-7951517	-1.084391351	0.00015
<i>Elf1</i>	14:79580484-79580684	-1.104028231	0.01629
<i>4930556M19Rik</i>	15:10721257-10721457	1.882932346	0.03308
<i>Basp1</i>	15:25364188-25364513	-0.880921973	0.00700
<i>Basp1</i>	15:25364670-25364905	-1.050987271	7.1397e-05
<i>Myo10</i>	15:25780889-25781107	-0.668019599	0.04302
<i>Ghr</i>	15:3518855-3519072	0.677742241	0.02109
<i>Ncald</i>	15:37397119-37397319	2.030072801	0.00572
<i>Trmt12</i>	15:58873129-58873379	1.07046087	0.02000
<i>Jrk</i>	15:74706560-74706760	1.819792989	0.00318
<i>Plec</i>	15:76176249-76176456	-0.657522746	0.04431
<i>Plec</i>	15:76177188-76177636	-0.586600286	0.01560
<i>Tnrc6b</i>	15:80879187-80879408	0.713813572	0.03713
<i>Fam118a</i>	15:85061688-85061906	-0.991413192	0.01528
<i>Gxylt1</i>	15:93244623-93245064	0.619523656	0.03011
<i>Lsg1</i>	16:30571326-30571526	-0.972020156	0.03035
<i>Nrros</i>	16:32143490-32143690	2.102914873	0.00063
<i>Slx4</i>	16:3979663-3979868	-0.793753543	0.04008
<i>Slx4</i>	16:3986924-3987155	-0.964305132	0.01231
<i>Plcx2</i>	16:45963776-45964012	-0.943353059	0.02707
<i>Gm15638</i>	16:45963776-45964012	-0.943353059	0.02707
<i>Nxpe3</i>	16:55844086-55844286	1.916135495	0.01692
<i>Col8a1</i>	16:57628101-57628313	-0.715104983	0.03982
<i>Robo1</i>	16:72663975-72664175	1.057063594	0.04340
<i>Chd1</i>	17:16973403-16973700	0.775508065	0.03338
<i>BC002059</i>	17:16973403-16973700	0.775508065	0.03338
<i>Zfp944</i>	17:22339686-22339886	1.241270625	0.01887
<i>Axin1</i>	17:26143299-26143499	0.918500248	0.03564
<i>Ggnbp1</i>	17:26975989-26976189	1.417826948	0.01053
<i>Zbtb9</i>	17:26975989-26976189	1.417826948	0.01053
<i>Btbd9</i>	17:30217977-30218202	-1.061571794	0.01809
<i>Gm26549</i>	17:32285160-32285383	1.006507484	0.00852
<i>Tjap1</i>	17:46258593-46258802	-0.639048587	0.04919
<i>Arid1b</i>	17:4995695-4995900	-0.943775964	0.03047
<i>Ubxn6</i>	17:56067355-56067555	-0.846658994	0.04877
<i>Chaf1a</i>	17:56067355-56067555	-0.846658994	0.04877
<i>Synj2</i>	17:6043733-6043957	0.821107569	0.04655
<i>Serac1</i>	17:6043733-6043957	0.821107569	0.04655
<i>Tgif1</i>	17:70844810-70845054	-0.689101219	0.04363

<i>Fam53c</i>	18:34768420-34768643	-1.04052783	0.00827
<i>Gm37013</i>	18:37696612-37696853	0.838807277	0.04492
<i>Pcdhga3</i>	18:37696612-37696853	0.838807277	0.04492
<i>Pcdhgb1</i>	18:37696612-37696853	0.838807277	0.04492
<i>Pcdhga4</i>	18:37696612-37696853	0.838807277	0.04492
<i>Gm42416</i>	18:37696612-37696853	0.838807277	0.04492
<i>Pcdhga2</i>	18:37696612-37696853	0.838807277	0.04492
<i>Gm37388</i>	18:37696612-37696853	0.838807277	0.04492
<i>Pcdhgb2</i>	18:37696612-37696853	0.838807277	0.04492
<i>Pcdhga5</i>	18:37696612-37696853	0.838807277	0.04492
<i>Pcdhga1</i>	18:37696612-37696853	0.838807277	0.04492
<i>Gm37013</i>	18:37767848-37768048	1.145617238	0.04869
<i>Gm26672</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhga12</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhga9</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhga5</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhgb7</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhga7</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhga2</i>	18:37767848-37768048	1.145617238	0.04869
<i>Gm42416</i>	18:37767848-37768048	1.145617238	0.04869
<i>Gm37388</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhga3</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhga4</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhga1</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhga6</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhgb2</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhgb5</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhga8</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhga10</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhgb1</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhgb4</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhga11</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhgb8</i>	18:37767848-37768048	1.145617238	0.04869
<i>Pcdhgb6</i>	18:37767848-37768048	1.145617238	0.04869
<i>Sema6a</i>	18:47248662-47248862	1.184441439	0.04410
<i>Sncap</i>	18:52915304-52915597	0.976793597	0.04007
<i>Zfp608</i>	18:54988281-54988481	1.751803494	0.00530
<i>Zeb1</i>	18:5727730-5727930	1.953561563	0.00276
<i>Slc12a2</i>	18:57879153-57879353	-1.104538019	0.00716
<i>Ndst1</i>	18:60713250-60713514	-1.149647098	0.00058
<i>Adrb2</i>	18:62178488-62178703	0.780753625	0.03735
<i>Zadh2</i>	18:84095049-84095354	-0.798411516	0.01299
<i>Osbp</i>	19:11991859-11992101	-0.735717885	0.01491
<i>Jak2</i>	19:29311707-29311907	-1.788156075	0.00623
<i>Ankrd1</i>	19:36112113-36112320	-0.942903856	0.00813
<i>Marveld1</i>	19:42151363-42151563	-1.116340564	0.04917
<i>R3hcc1l</i>	19:42590914-42591120	1.183109702	0.00224
<i>Wbp1l</i>	19:46655932-46656132	-1.125276458	0.01452
<i>Tmem151a</i>	19:5074581-5074781	1.133604102	0.02534
<i>Ccdc85b</i>	19:5457015-5457512	-0.90676838	0.00364
<i>Rtn3</i>	19:7456636-7456836	-1.044206951	0.04769
<i>Prrg4</i>	2:104832356-104832556	1.588780067	0.04761
<i>Rpusd2</i>	2:119038425-119038628	0.865712878	0.03516
<i>Vps18</i>	2:119293660-119293881	-0.649800126	0.04541
<i>1700020114Rik</i>	2:119599677-119599893	-0.624091807	0.02282
<i>Stard9</i>	2:120696532-120696732	-1.859208123	0.00331
<i>Zscan29</i>	2:121163988-121164188	-1.09546971	0.04209
<i>Gm14005</i>	2:128252825-128253025	-2.844380522	0.03416
<i>Pced1a</i>	2:130423787-130423987	0.854850826	0.03595
<i>A730017L22Rik</i>	2:130874386-130874586	0.865838951	0.02072
<i>4930402H24Rik</i>	2:130874386-130874586	0.865838951	0.02072
<i>Hacd1</i>	2:14033497-14033697	1.029074891	0.03437
<i>Rrbp1</i>	2:143988756-143988959	-0.793708961	0.03033

<i>Rrbp1</i>	2:143989459-143989659	-1.117672889	0.00179
<i>Gzf1</i>	2:148683717-148683917	1.376768303	0.00833
<i>Csnk2a1</i>	2:152267519-152267719	1.116729736	0.02668
<i>Sox12</i>	2:152396850-152397050	1.238424076	0.04284
<i>Mcts2</i>	2:152687359-152687559	-1.043552029	0.03241
<i>H13</i>	2:152687359-152687559	-1.043552029	0.03241
<i>E2f1</i>	2:154560642-154560842	-1.631586661	0.00184
<i>Ncoa6</i>	2:155405643-155405883	-0.70324043	0.02570
<i>Dlgap4</i>	2:156762855-156763106	-0.89769615	0.04719
<i>Tgif2</i>	2:156853638-156853894	1.362491823	0.02749
<i>5430405H02Rik</i>	2:156853638-156853894	1.362491823	0.02749
<i>Tti1</i>	2:158007329-158007529	1.149900152	0.01865
<i>Fam83d</i>	2:158785394-158785629	-1.231419893	0.00993
<i>Zmynd8</i>	2:165807801-165808043	0.944263625	0.01680
<i>Zmynd8</i>	2:165812415-165812757	0.626503734	0.01900
<i>Zbtb46</i>	2:181391200-181391400	-1.62950113	0.00247
<i>Etl4</i>	2:20806429-20806657	0.751960677	0.03466
<i>Tor4a</i>	2:25195576-25195821	-0.959285576	0.01287
<i>Ntng2</i>	2:29227676-29227904	1.120219903	0.01690
<i>Cercam</i>	2:29882436-29882636	-1.263922534	0.01068
<i>Dolpp1</i>	2:30399182-30399382	-1.079062041	0.01591
<i>Dhrs9</i>	2:69401814-69402014	2.339309599	7.8856e-05
<i>Tnks1bp1</i>	2:85052264-85052486	-0.941814111	0.00491
<i>Trim45</i>	3:100925330-100925573	1.05866057	0.01432
<i>Ngf</i>	3:102520264-102520464	-0.80915702	0.00265
<i>Ngf</i>	3:102520494-102520762	-0.650073793	0.01272
<i>Magi3</i>	3:104014869-104015097	0.67080092	0.03313
<i>Phtf1</i>	3:104014869-104015097	0.67080092	0.03313
<i>Dph5</i>	3:115906696-115906896	-1.628041675	0.03251
<i>Lrrc39</i>	3:116574899-116575107	1.739255265	0.03359
<i>Rwdd3</i>	3:121158786-121158998	1.105899918	0.00489
<i>Alpk1</i>	3:127679806-127680048	0.963635893	0.04067
<i>Sgms2</i>	3:131322929-131323152	-0.64082985	0.02481
<i>Tet2</i>	3:133466905-133467134	0.903115551	0.03726
<i>Gbp7</i>	3:142547952-142548152	-1.513216994	0.00729
<i>Gm43802</i>	3:142547952-142548152	-1.513216994	0.00729
<i>Pigk</i>	3:152788741-152788941	-0.739542157	0.03659
<i>Pld1</i>	3:28131759-28131984	0.590077837	0.04009
<i>Mecom</i>	3:29979640-29979880	0.984546054	0.00968
<i>D3Ertd254e</i>	3:36165736-36165981	1.180871891	0.00149
<i>Nudt6</i>	3:37404720-37404920	-0.959476115	0.04402
<i>Fgf2</i>	3:37404720-37404920	-0.959476115	0.04402
<i>Gm43439</i>	3:37404720-37404920	-0.959476115	0.04402
<i>Ankrd50</i>	3:38451687-38451888	-0.666552217	0.03748
<i>Il6ra</i>	3:89870104-89870343	0.927615164	0.03839
<i>Sprr2a2</i>	3:92242018-92242218	6.364830146	2.1537e-06
<i>Zbtb10</i>	3:9251770-9251970	-1.240575829	0.00725
<i>Zfp687</i>	3:95012031-95012280	1.016447936	0.00761
<i>Hist2h2be</i>	3:96221309-96221509	2.411843185	2.9735e-06
<i>1110037F02Rik</i>	4:11519132-11519332	0.946269144	0.04372
<i>Hivep3</i>	4:120133871-120134077	1.387696096	0.00045
<i>Macf1</i>	4:123434717-123434956	-0.654670674	0.02690
<i>Zmym1</i>	4:127048934-127049134	2.424066499	0.00246
<i>Gm12940</i>	4:127048934-127049134	2.424066499	0.00246
<i>Bsdcl</i>	4:129487512-129487734	0.729341049	0.03589
<i>Ahdcl</i>	4:133066011-133066221	-1.138168062	0.00727
<i>Fam46b</i>	4:133487011-133487224	0.959845383	0.02975
<i>Arid1a</i>	4:133685163-133685363	-0.691195168	0.04421
<i>Arid1a</i>	4:133752944-133753144	-1.139132919	0.01012
<i>Cep85</i>	4:134162744-134162944	-1.935992764	0.02333
<i>Runx1t1</i>	4:13890235-13890435	2.067133577	0.00499
<i>Tmem51</i>	4:142031593-142031820	-0.966445223	0.02753
<i>Fndc10</i>	4:155695357-155695557	1.3096307	0.02902

<i>Isg15</i>	4:156199615-156199815	-1.257481304	0.02089
<i>Epha7</i>	4:28821066-28821394	0.82104162	0.02543
<i>B4galt1</i>	4:40806825-40807025	-1.154879625	0.01319
<i>Fam214b</i>	4:43035895-43036095	-1.275167041	0.00511
<i>Tbc1d2</i>	4:46604894-46605094	1.2585897	0.02168
<i>Impad1</i>	4:4767608-4767848	-0.598652988	0.01869
<i>Zfp189</i>	4:49529080-49529280	-1.105380722	0.03102
<i>Zfp462</i>	4:55010294-55010506	0.699657289	0.02837
<i>Zfp462</i>	4:55011468-55011677	0.842898304	0.04176
<i>Klf4</i>	4:55530035-55530235	-1.068176592	0.02804
<i>Slc31a2</i>	4:62297218-62297418	-1.177986107	0.04555
<i>Tlr4</i>	4:66839544-66839804	-1.069820023	0.01993
<i>Brinp1</i>	4:68761897-68762157	0.995036883	0.02157
<i>Brinp1</i>	4:68762400-68762600	1.4761703	0.00342
<i>C630043F03Rik</i>	4:72201325-72201525	1.229980316	0.02858
<i>A830010M20Rik</i>	5:107507466-107507666	1.269911207	0.04065
<i>Gm42669</i>	5:107507466-107507666	1.269911207	0.04065
<i>Coro1c</i>	5:113875200-113875400	1.795797842	0.01375
<i>Gm15800</i>	5:121220365-121220565	-1.374047106	0.03475
<i>Sfswap</i>	5:129501252-129501452	-0.937936962	0.02092
<i>Clip2</i>	5:134490517-134490728	-0.958910914	0.01335
<i>Tbl2</i>	5:135159353-135159586	0.936068421	0.04697
<i>Serpine1</i>	5:137062891-137063118	-0.907751792	0.00391
<i>Ephb4</i>	5:137373614-137373849	-1.087351184	0.02553
<i>Zkscan1</i>	5:138104383-138104612	0.785926213	0.04432
<i>Zfand2a</i>	5:139473084-139473323	-0.777676233	0.03527
<i>Chst12</i>	5:140523841-140524107	-0.979998087	0.00072
<i>Chst12</i>	5:140524680-140524972	-0.615348017	0.02165
<i>Rnf6</i>	5:146211690-146211909	-0.914097448	0.03451
<i>Kmt2c</i>	5:25310415-25310615	1.001099047	0.04355
<i>Emilin1</i>	5:30921031-30921231	-0.931922708	0.00805
<i>Preb</i>	5:30951742-30951942	1.534827005	0.03025
<i>Abhd1</i>	5:30951742-30951942	1.534827005	0.03025
<i>Ppm1g</i>	5:31206106-31206306	-0.720453275	0.03120
<i>Bloc1s4</i>	5:36747797-36748023	-0.891829851	0.00546
<i>Bloc1s4</i>	5:36748184-36748414	-1.058161316	0.00491
<i>Fzd1</i>	5:4754169-4754369	-0.921067879	0.04839
<i>Slit2</i>	5:47984164-47984378	0.775316417	0.03030
<i>Slit2</i>	5:48304464-48304664	0.807130078	0.03167
<i>Stim2</i>	5:54118917-54119117	0.828734388	0.03832
<i>Stim2</i>	5:54119125-54119325	1.256919696	0.00329
<i>G3bp2</i>	5:92054500-92054700	-1.363728477	0.00430
<i>Gm26582</i>	5:92054500-92054700	-1.363728477	0.00430
<i>Srgap3</i>	6:112719048-112719376	0.961040143	0.04109
<i>Tatdn2</i>	6:113702260-113702460	-0.771927527	0.03925
<i>Csgalnact2</i>	6:118129079-118129279	-0.853126868	0.04987
<i>Wnk1</i>	6:119962665-119962865	-2.204236079	0.00989
<i>Wnk1</i>	6:119963189-119963389	-1.822060078	0.00823
<i>Mical3</i>	6:120931886-120932143	0.801817088	0.03587
<i>Ptms</i>	6:124914651-124914851	-0.652551702	0.04677
<i>Vamp1</i>	6:125240577-125240841	-0.97032399	0.02189
<i>9330102E08Rik</i>	6:128171905-128172145	0.947492964	0.03954
<i>Gcc1</i>	6:28418249-28418449	-1.035708352	0.01907
<i>Mrpl19</i>	6:81961928-81962128	1.231864716	0.00909
<i>Sfxn5</i>	6:85214426-85214626	2.617998241	0.00554
<i>Fbln2</i>	6:91234076-91234315	-0.947954427	0.00111
<i>Fbln2</i>	6:91250744-91250975	-0.760732139	0.02111
<i>Fbln2</i>	6:91252338-91252564	-1.471700118	0.00256
<i>Fbln2</i>	6:91254346-91254546	-1.854753907	0.00181
<i>Lipt2</i>	7:100160396-100160596	1.487838289	0.04271
<i>Fam160a2</i>	7:105389580-105389780	1.533215971	0.00616
<i>Dchs1</i>	7:105758730-105758930	-1.145655501	0.04273
<i>Sox6</i>	7:115503411-115503721	1.615757765	0.03364

<i>Itpril2</i>	7:118489642-118489866	-0.898046065	0.00159
<i>Itpril2</i>	7:118490807-118491036	-0.627443731	0.02121
<i>Ccp110</i>	7:118722643-118722843	1.245662263	0.00327
<i>Knop1</i>	7:118844464-118844664	0.996922229	0.03975
<i>Tnrc6a</i>	7:123171467-123171667	0.94324737	0.00540
<i>Zfp606</i>	7:12493597-12493797	1.119890966	0.04995
<i>AC139131.1</i>	7:12493597-12493797	1.119890966	0.04995
<i>Bola2</i>	7:126695548-126695748	-1.295914942	0.03291
<i>Slx1b</i>	7:126695548-126695748	-1.295914942	0.03291
<i>9130019O22Rik</i>	7:127384189-127384418	1.174317436	0.01282
<i>Prr14</i>	7:127459768-127459987	0.62888502	0.03886
<i>B130055M24Rik</i>	7:127459768-127459987	0.62888502	0.03886
<i>Setd1a</i>	7:127785188-127785406	-0.830071154	0.03584
<i>Phrf1</i>	7:141258168-141258452	0.906348581	0.03355
<i>Mrgpre</i>	7:143780672-143780882	-1.199844676	0.00560
<i>Ccdc8</i>	7:16994234-16994434	1.062965941	0.02860
<i>Sipa1l3</i>	7:29400834-29401034	-0.936146802	0.04856
<i>Prkcg</i>	7:3302244-3302444	-2.682765383	8.9093e-07
<i>Zfp976</i>	7:42609787-42610001	1.199899931	0.02704
<i>Zfp976</i>	7:42610102-42610302	1.947710022	0.00226
<i>Lmtk3</i>	7:45798190-45798390	-2.236916134	0.02980
<i>Asb7</i>	7:66647790-66647990	0.855758512	0.04652
<i>Ttc23</i>	7:67734799-67735007	0.795381287	0.01916
<i>Synm</i>	7:67734799-67735007	0.795381287	0.01916
<i>Acan</i>	7:79099807-79100042	-0.771214666	0.03629
<i>Zfp592</i>	7:81041633-81041833	-0.83357511	0.03699
<i>Gab2</i>	7:97299071-97299271	-1.254074513	0.02639
<i>Rnf169</i>	7:99924346-99924546	1.231972984	0.01170
<i>Rnf169</i>	7:99925477-99925710	0.70532109	0.01649
<i>Nob1</i>	8:107412641-107412841	-1.87848444	0.00041
<i>Zfp1</i>	8:111669622-111669846	0.800623406	0.00685
<i>Bcar1</i>	8:111710613-111710813	-0.704926968	0.02219
<i>Gm20388</i>	8:122264886-122265086	-2.042059712	0.00103
<i>Zfpm1</i>	8:122336640-122336840	-2.650324582	0.00018
<i>Gm20388</i>	8:122336640-122336840	-2.650324582	0.00018
<i>Exoc8</i>	8:124896544-124896745	-0.804547597	0.02733
<i>Erlin2</i>	8:27036528-27036766	0.703453609	0.01571
<i>Cdkn2aip</i>	8:47711160-47711415	0.825158636	0.01929
<i>Lpar2</i>	8:69826523-69826723	-3.58673466	2.6215e-08
<i>Crtc1</i>	8:70386052-70386252	-1.293199659	0.01576
<i>Gm11175</i>	8:70699012-70699212	-0.986236699	0.00131
<i>Jund</i>	8:70699012-70699212	-0.986236699	0.00131
<i>Prmt9</i>	8:77552486-77552686	1.918384514	0.00953
<i>Tmem184c</i>	8:77596561-77596864	0.668059099	0.01552
<i>Arglu1</i>	8:8667220-8667420	0.791410887	0.02491
<i>Rspry1</i>	8:94628939-94629139	1.68233402	0.01934
<i>Slco2a1</i>	9:103087293-103087536	-0.790421851	0.01745
<i>Ctdspl</i>	9:119013735-119013935	1.843110087	0.01334
<i>Keap1</i>	9:21237433-21237633	-1.895594538	0.00300
<i>Nlr1</i>	9:44252789-44252989	1.269440425	0.03850
<i>Zc3h12c</i>	9:52116138-52116343	0.717134028	0.03785
<i>Zc3h12c</i>	9:52116473-52116673	1.326915769	0.00627
<i>Peak1</i>	9:56283218-56283478	1.070695733	0.01265
<i>Cspg4</i>	9:56887789-56887989	-1.31928131	0.00249
<i>Cspg4</i>	9:56898772-56899001	-0.770429518	0.01308
<i>Cspg4</i>	9:56899548-56899748	-1.127461079	0.00721
<i>Glce</i>	9:62070162-62070408	-0.83436869	0.02695
<i>Tpbp</i>	9:85844838-85845043	0.883150306	0.02010
<i>Ercc6l</i>	X:102144994-102145194	-1.22447549	0.04932
<i>Brwd3</i>	X:108743354-108743583	0.661465345	0.02875
<i>lqsec2</i>	X:152209384-152209584	-1.004980975	0.03979
<i>Cybb</i>	X:9484936-9485136	1.301393823	0.01962

Supplemental Table 2: The primary antibodies used in immunofluorescence staining

Antibody	Isotype	Source	Catalogue number	Conjugate	Working dilution
METTL14	Rabbit	Abclonal	A8530	-	1:200
METTL3	Rabbit	Abclonal	A8370	-	1:200
SERPINE1	Rabbit	Abcam	ab66705	-	1:200
KLF4	Rabbit	Abclonal	A1363	-	1:2000
p-STAT1	Rabbit	Cell signalling	91675	-	1:100
STAT1	Rabbit	Cell signalling	14994	-	1:100
ACTA2	Mouse	Sigma	C6198	Cy3	1:5000
Goat anti-rabbit IgG	Rabbit	Invitrogen	A32733	Alexa fluor plus 647	1:500
Goat anti-rabbit IgG	Rabbit	Invitrogen	A32740	Alexa fluor plus 594	1:500

Supplemental Table 3: qRT-PCR primer sequences

Primer name	Forward	Reverse
<i>Ythdc1</i>	TTCAGGAGTTTCGCCGAGATG	TCCCGGGTAAGGAGGATTCC
<i>Ythdf1</i>	GGAGGTGGTGCGTAAGGAAA	GACGACACTGGAGCTGACTC
<i>Ythdf2</i>	GGCAAGGCCGAATAATGCAT	CCTCCAGTAGACCAAGCAGC
<i>Mettl3</i>	GAGGTTTCGTTCCACCAGTCA	A TCCAGTTGGGCTGCACA TT
<i>Mettl14</i>	CATCAGGGATGTAGGTTTAGCTG	TGGGAGGAGTGTGTTGACTTAGC
<i>Virma</i>	GCCGCTTAGTTCTACGGGTT	CTTTCCTCTCGAGCCTCCAC
<i>Wtap</i>	AAAGCAGCAACAGCAGGAGT	ACTGGATTTGAGTGGTGCAC
<i>Fto</i>	GCATGGCGCTGAAATACCC	TTGCCTTGGATCCTCACCAC
<i>Alkbh5</i>	TGTGCTCAGTGGGTATGCTG	TCCAATCGCGGTGCATCTAA
<i>Mmp1</i>	TTGGCTTAGAGGTGACTGGC	TTCACCCACATCAGGCACTC
<i>Mmp2</i>	CAAGGATGGACTCCTGGCACAT	TACTCGCCATCAGCGTTCCCAT
<i>Mmp3</i>	CTCTGGAACCTGAGACATCACC	AGGAGTCCTGAGAGATTTGCGC
<i>Mmp7</i>	AGGTGTGGAGTGCCAGATGTTG	CCACTACGATCCGAGGTAAGTC
<i>Mmp9</i>	GCTGACTACGATAAGGACGGCA	TAGTGGTGCAGGCAGAGTAGGA
<i>Mmp10</i>	TGCTGCCTATGAGGCTCACAAC	GGAGGAAAACCGAGAGTGTGGA
<i>Mmp12</i>	CACACTTCCCAGGAATCAAGCC	TTTGGTGACACGACGGAACAGG
<i>18S</i>	CCGCAGCTAGGAATAATGGA	CCCTCTTAATCATGGCCTCA

Supplemental Table 4: The primary antibodies used in Western blots

Antibody	Isotype	Source	Catalogue number	Conjugate	Working dilution
METTL14	Rabbit	Sigma	HPA038002	-	1:1000
METTL3	Rabbit	Abcam	Ab195352	-	1:1000
SERPINE1	Rabbit	Abcam	Ab66705	-	1:800
CALPONIN	Mouse	ThermoFisher	MA511620	-	1:2000
ACTA	Mouse	Abcam	ab7817	-	1:2000
TAGLN	Rabbit	Abcam	ab14106	-	1:2000
MYH11	Mouse	Sigma	M7786	-	1:1000
MYH10	Mouse	ThermoFisher	MA527767	-	1:1000
KLF4	Rabbit	ThermoFisher	PA1095	-	1:500
OPN	Rabbit	ThermoFisher	702184		1:1000
p-STAT1	Rabbit	Cell signalling	91675	-	1:1000
STAT1	Rabbit	Cell signalling	149945	-	1:1000
β -actin	Mouse	Abcam	ab49900	HRP	1:12000
Anti-mouse IgG	Mouse	Cell signalling	7076	HRP	1:5000
Anti-rabbit IgG	Rabbit	Cell signalling	7074	HRP	1:5000

Supplemental Table 5: qRT-PCR primer sequences for nascent RNA assay

Primer name	Forward	Reverse
<i>mKLF4_4sU</i>	CCCCTCTCTCTTCTTCGGAC	CAGTGTCTTCTCCCTTCCCG
<i>mSerpine1_4sU</i>	GCCAACAAGAGCCAATCACA	GACCACCTGCTGAAACACTT
<i>mACTB_4sU</i>	TCTTTGCAGCTCCTTCGTTG	ACGATGGAGGGGAATACAGC