Suppl. Table 1: ***Characteristics of chronic myelogenous leukaemia (CML) patients at diagnosis, of CML patients treated with dasatinib or imatinib after < 3 months of therapy and of healthy subjects for determination of serum concentrations of soluble intercellular adhesion molecule 1 (sICAM-1), soluble vascular cell adhesion molecule 1 (sVCAM-1) and soluble E-selectin (sE-selectin).*** F = female; N/A = no applicable; M = male

	Healthy subjects	CML patients (without PH) at diagnosis	CML patients (without PH) treated with dasatinib	CML patients (without PH) treated with imatinib
n	39	17	24	14
Age, years	41.9 ± 2.1	49.3 ± 2,9	42.5± 3.5	58.4± 4.5
Sex, M/F (ratio)	19/20 (0.95)	11/6 (1.83)	15/9 (0.60)	11/3 (3.66)
Sokal risk score				
Low	N/A	8	13	5
Intermediate	N/A	7	7	5
High	N/A	2	4	4
Sokal score	N/A	0.85 ± 0.06	0.88 ± 0.06	0.98 ± 0.08

Suppl. Table 2: ***Primary antibodies used in this study.***

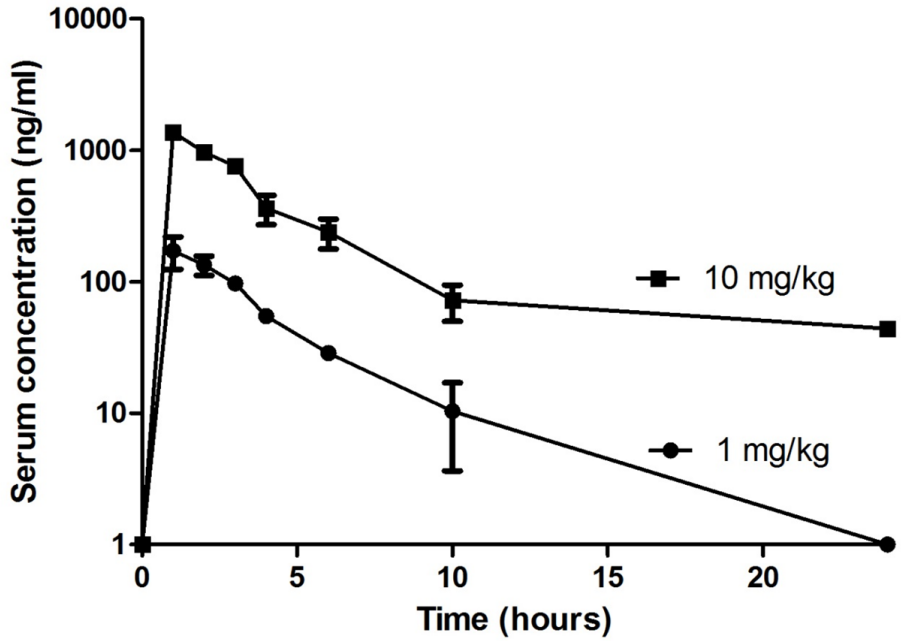
Primary antibodies used for Western Blotting:

	Company Names	Catalog numbers
phospho-Erk1/2 (E-4)	Santa Cruz Biotechnology	sc-7383
Erk2 (C-14)	Santa Cruz Biotechnology	sc-154
XBP-1 (M-186)	Santa Cruz Biotechnology	sc-7160
GRP78 (H-129)	Santa Cruz Biotechnology	sc-13968
ATF-6α (H-280)	Santa Cruz Biotechnology	sc-22799
EiF2α (FL-315)	Santa Cruz Biotechnology	sc-11386
p-EiF2α (Ser51)	Cell signaling Technology	3398
p-Src Family (Tyr416)	Cell signaling Technology	2101
Src (36D10)	Cell signaling Technology	2109
phopho-EiF2 (Ser51)	Cell signaling Technology	3398
β-actin (AC-74)	Sigma-Aldrich	A2228

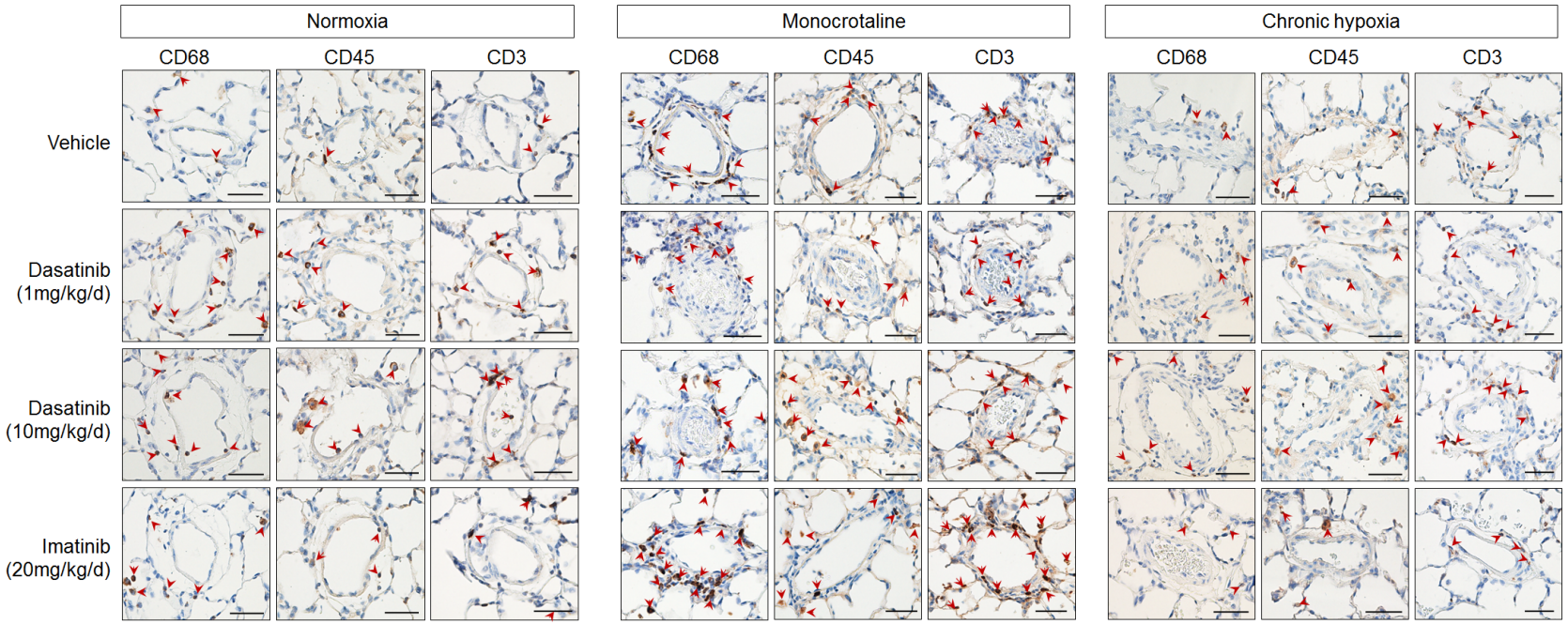
Primary antibodies used for Immunostaining:

	Company Names	Catalog numbers
ICAM-1 (G-5)	Santa Cruz Biotechnology	sc-8439
E-selectin (H-300)	Santa Cruz Biotechnology	sc-14011
α-smooth muscle actin (1A4)	Santa Cruz Biotechnology	sc-32251
CD68 (ED1)	Santa Cruz Biotechnology	sc-59103
8-oxo-dG	JaICA	MOG-020P
VCAM-1	Abcam	ab134047
CD3	BD Pharmigen	550295
CD45	BD Pharmigen	550566

Suppl. Fig S1: ***Pharmacokinetic profile of dasatinib in 4-week-old male Wistar rats weighing 100 g.***

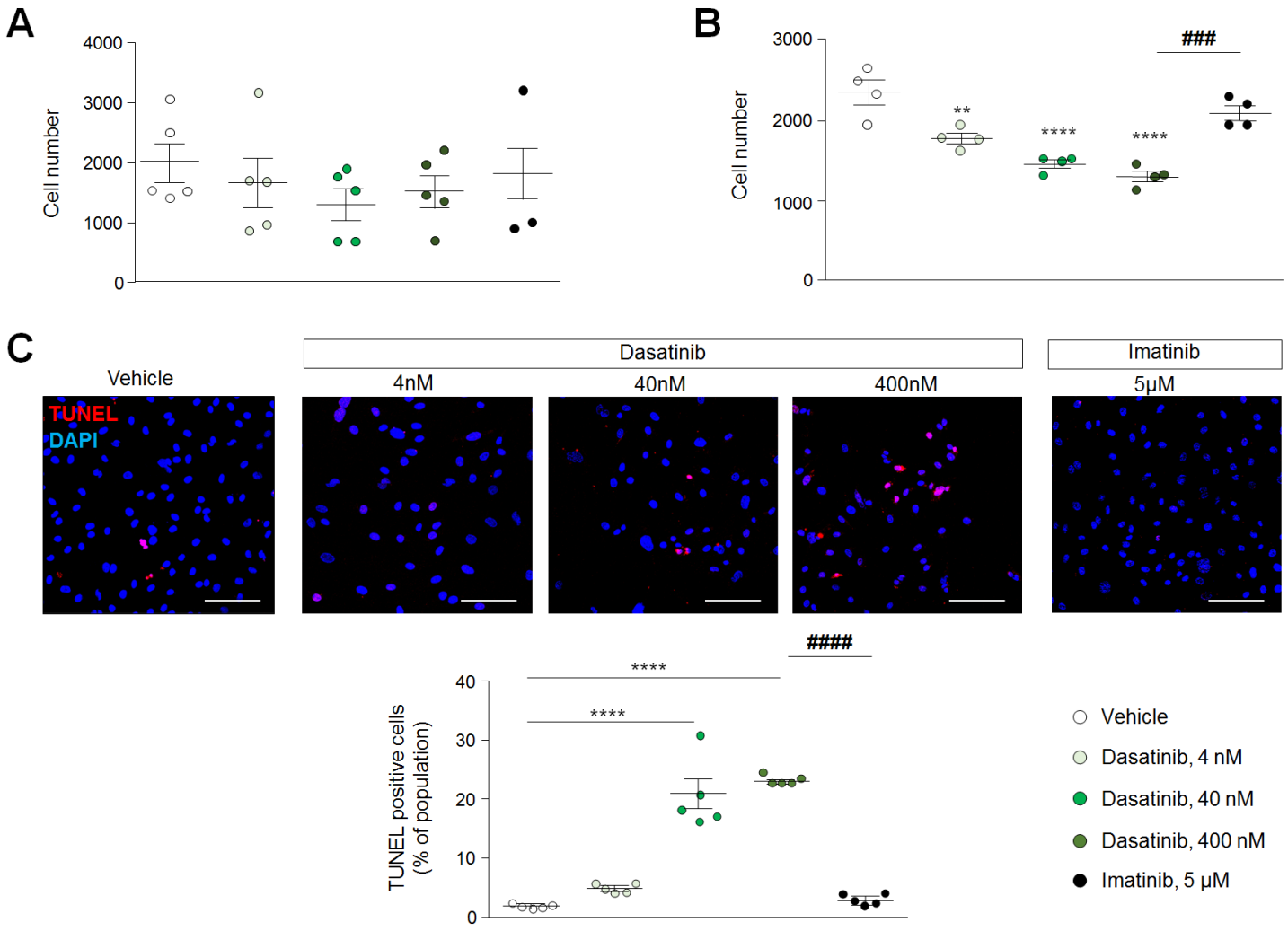


Suppl. Fig S2: ***Representative images of CD68-, CD45- and CD3-stained sections of distal pulmonary arteries in vehicle- dasatinib- imatinib-treated rats and quantifications of the numbers of CD68-, CD45-, CD3-positive cells/vessels.*** Red arrowhead = CD68-, CD45, or CD3-positive cells. Scale bar = 20 µm in all sections.



	Normoxia			Monocrotaline			Chronic hypoxia		
	CD68	CD45	CD3	CD68	CD45	CD3	CD68	CD45	CD3
Vehicle	1.0 ± 1.1	0.9 ± 0.5	0.9 ± 0.7	9.9 ± 2.1	6.3 ± 2.0	10.5 ± 3.9	1.6 ± 1.0	3.2 ± 1.6	3.4 ± 2.2
Dasatinib (1mg/kg/d)	* 4.6 ± 1.3	* 3.1 ± 1.1	* 4.4 ± 1.0	6.9 ± 1.6	6.5 ± 1.4	10.3 ± 2.5	2.8 ± 1.5	2.7 ± 1.3	5.6 ± 1.8
Dasatinib (10mg/kg/d)	* 6.3 ± 1.8	* 4.6 ± 1.4	* 5.1 ± 1.6	7.0 ± 2.0	7.7 ± 2.0	9.2 ± 2.1	* 4.0 ± 2.2	3.7 ± 1.9	* 5.7 ± 1.8
Imatinib (20mg/kg/d)	2.5 ± 1.3	2.2 ± 1.3	* 2.4 ± 1.0	7.7 ± 2.7	5.8 ± 1.5	13.7 ± 4.8	2.3 ± 0.9	1.7 ± 0.9	2.9 ± 1.4

Suppl. Fig S3: ***Viable cell counts 2 hours (A) and 16 hours (B) following treatment with vehicle, dasatinib or imatinib. (C) Representative images and quantification of the TUNEL staining in human pulmonary ECs treated 16 hours with vehicle, dasatinib or imatinib.*** Horizontal lines display the mean ± SEM (n=3-5). ** p-value < 0.01; **** p-value < 0.0001 *versus* vehicle treated cells. ### p-value < 0.001; #### p-value < 0.0001 *versus* human ECs treated with 400nM of dasatinib. Scale bar = 20 µm in all sections. DAPI = 4' 6-diamidino-2-phenylindole; TUNEL = Terminal deoxynucleotidyl transferase dUTP nick end labeling.



Suppl. Fig S4: ***Schematic representation of the proposed mechanism of dasatinib-induced PAH.***