

**Muñoz-Galván *et al.* “PAI1 is a marker of bad prognosis in rectal cancer but predicts a better response to treatment with PIM inhibitor AZD1208”**

**Supplementary Material:**

Supplementary Table S1

Supplementary Table S2

Supplementary Table S3

Supplementary Table S4

Supplementary Figure S1

**Supplementary Table S1:** Patient HUVR cohort characteristics.

<b>Cohort description</b>	<b>Cohort</b>
	<b>N=135</b>
<b>Gender (years)</b> <ul style="list-style-type: none"> <li>• Women</li> <li>• Men</li> <li>• Age</li> </ul>	43 92 Median 68 years old
<b>Tumor localization (distance from the anal verge)</b> <ul style="list-style-type: none"> <li>• Low rectum (3-5 cm)</li> <li>• Medium rectum (6-9 cm)</li> <li>• High rectum (10-15 cm)</li> <li>• Non recorded in medical history</li> </ul>	54 45 34 2
<b>Histology and tumoral grade</b> <ul style="list-style-type: none"> <li>• Adenocarcinoma GI</li> <li>• Adenocarcinoma GII</li> <li>• Adenocarcinoma GIII</li> <li>• Non recorded in medical history</li> </ul>	28 67 5 35
<b>Pre-treatment stage (TNM)</b> <ul style="list-style-type: none"> <li>• I</li> <li>• IIA</li> <li>• IIB</li> <li>• IIC</li> <li>• IIIA</li> <li>• IIIB</li> <li>• IIIC</li> <li>• IV</li> </ul>	1 23 3 10 7 67 22 2
<b>Surgery</b> <ul style="list-style-type: none"> <li>• Low anterior resection</li> <li>• Abdominoperineal resection</li> <li>• Other procedures</li> </ul>	89 41 5
<b>Tumor recurrence</b> <ul style="list-style-type: none"> <li>• No events</li> <li>• Local relapse</li> <li>• Hepatic relapse</li> <li>• Lung relapse</li> <li>• Local and Hepatic relapse</li> <li>• Local and Lung relapse</li> <li>• Local and peritoneal relapse</li> <li>• Distant relapse in other localizations</li> </ul>	<b>Tumor recurrence</b> 101 11 7 7 2 3 1 3

**Supplementary Table S2.** Mutational analysis of the CRC cell lines used in this study.

<i>Cell line</i>	Kras mutation	Braf V600E	PI3KCA mutation
<b>COLO205</b>	<b>Wild type</b>	<b>Mutated</b>	<b>G914R</b>
<b>HT29</b>	<b>Wild type</b>	<b>Mutated</b>	<b>P449T</b>
<b>HCT116</b>	<b>G13D</b>	<b>Wild type</b>	<b>H1047R</b>
<b>LS180</b>	<b>G12D</b>	<b>Wild type</b>	<b>H1047R</b>
<b>LOVO</b>	<b>G13D</b>	<b>Wild type</b>	<b>ND</b>
<b>T84</b>	<b>G13D</b>	<b>Wild type</b>	<b>E542K; H1047R</b>
<b>SW480</b>	<b>G12V</b>	<b>Wild type</b>	<b>ND</b>
<b>SW48</b>	<b>Wild type</b>	<b>Wild type</b>	<b>G914R</b>

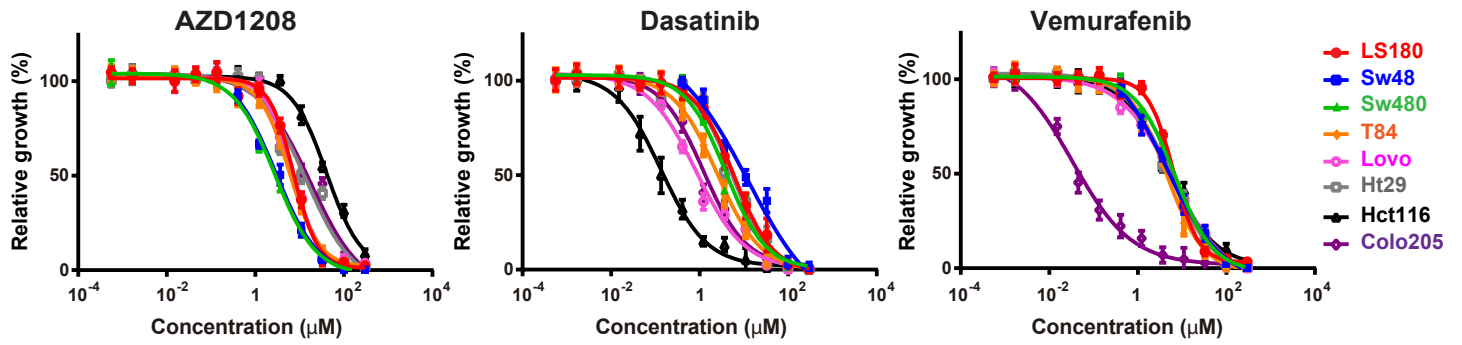
**Supplementary Table S3.** Characteristics of patient public databases used in this study.

Databases	N	Sex	Age	histology	Reference
<b>GSE8671</b>	NT=32 T=32	F=37.5% M=62.5%	38-83 20-50=15.6% 50-83=84.4%	Non tumoral Adenocarcinoma Rectum	Sabates-Bellver J et al., Mol Cancer Res 2007
<b>GSE35452</b>	T=46	nd	0-90	Rectal cancer	
<b>GSE2109</b>	T=38	F=18 M=20	20-90	Adenocarcinoma Rectum	
<b>GSE21510</b>	NT=25 T=homogenized 19 Lcm=104	F=1/3 M=2/3	20-92	CRC	Tsukamoto et al., Clin Cancer Res 2011
<b>GSE4183</b>	NT=8 T=15	F=94 M=51	NT=50.6 +- 5.97 T= DukeB =65.3 +-13.6 Duke C-D=67.5+-11.8	Healthy =8 CRC Duke B= 7 CRC Duke C-D= 8	Galamba O et al., Dis Markers 2008
<b>GSE20916</b>	NT=34 T=111	F=94 M=51	38-85	Adenocarcinoma de colon	Skrzypczak M et al., PLoS One. 2010
<b>GSE33114</b>	NT=6 T=90	F=48 M=42	34-95	Primary colorectal cancer	de Sousa E Melo et al., Cell Stem Cell. 2011

**Supplementary Table S4.** Determination of the IC<sub>50</sub> value (concentration of drug necessary to induce 50% of cell death) to AZD1208, Dasatinib and Vemurafenib. Average and SEM of three independent experiments is shown.

Cell lines	IC50 (μM)		
	AZD1208	Dasatinib	Vemurafenib
LS180	7.2 ± 0.7	5.3 ± 0.8	6.2 ± 0.8
Sw48	2.9 ± 1	12 ± 1.4	4.5 ± 1
Sw480	2.8 ± 1.2	3.1 ± 1.2	6.4 ± 0.7
T84	6.24 ± 0.7	2.2 ± 0.9	4.3 ± 1.3
Lovo	6.8 ± 1.2	1.1 ± 0.5	6.2 ± 0.5
Ht29	15 ± 0.9	4 ± 1	5.2 ± 0.9
Hct116	31.7 ± 2.3	0.11 ± 0.012	5.14 ± 0.8
Colo205	18 ± 1.4	1.7 ± 0.2	0.03 ± 0.006

## Supplementary Figure S1



**Figure S1. Determination of IC<sub>50</sub> value.** Representative graph of IC<sub>50</sub> curves (IC<sub>50</sub> concentration that induces a 50% of cell death) to PIM Inhibitor AZD1208, Dasatinib or Vemurafenib for the cell lines LS180, Sw48, Sw480, T84, Lovo, Ht29, Hct116 and Colo205.