

Supplemental material

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Table S1. Defects in PcG factors associated with oncogenic functions

Factor	Alteration	Disease	Reference
<i>Bmi-1</i>	Overexpression (protein)	B and T cell lymphomas (mouse), MCL (human), DLBCL (human), B cell lymphoma (human), and MDS (human)	(Alkema et al., 1997; Jacobs et al., 1999; Beà et al., 2001; van Kemenade et al., 2001; Mihara et al., 2006; van Galen et al., 2007)
	Overexpression (RNA)	Hodgkin's disease (human), AML (human), CML (human), and pediatric ALL (human)	(Raaphorst et al., 2000; Sawa et al., 2005; Mohty et al., 2007; Saudy et al., 2014; Peng et al., 2017)
<i>Cbx7</i>	Overexpression (protein)	T-cell lymphomas (mouse) and FL (human)	(Scott et al., 2007)
<i>Ezh2</i>	Overexpressed (protein)/gene amplified	MCL (human) and B cell lymphoma (human)	(van Kemenade et al., 2001; Visser et al., 2001; Okosun et al., 2014)
	GOF mutations Y641F/N/S/H/C, A677G, and A687V	DLBCL (human) and FL (human)	(Morin et al., 2010; Sneeringer et al., 2010; Yap et al., 2011; Majer et al., 2012; McCabe et al., 2012; Béguelin et al., 2013, 2016; Bödör et al., 2013; Caganova et al., 2013; Ott et al., 2014)

MCL, mantle cell lymphoma.

Table S2. Defects in PcG factors associated with tumor-suppressive functions

Factor	Alteration	Disease	Reference
<i>Bmi-1</i>	Deletion	PMF (mouse)	(Oguro et al., 2012)
<i>Phc1</i>	Deletion/down-regulation (RNA)	ALL (mouse and human)	(Tokimasa et al., 2001)
<i>Bcor</i>	Deletion/down-regulation (RNA)	MDS (human) and AML (human)	(Grossmann et al., 2011; Damm et al., 2013)
<i>Bcor1</i>	Deletion/down-regulation (RNA)	MDS (human) and AML (human)	(Li et al., 2011; Damm et al., 2013)
<i>Ezh2</i>	Deletion/down-regulation (RNA)/missense mutations/LOF mutations	MDS (mouse), MDS/MPN (human), AML (human), CMML (human), T-ALL (human), and ETP ALL (human)	(Ernst et al., 2010; Nikoloski et al., 2010; Bejar et al., 2011; Ntziachristos et al., 2012; Puda et al., 2012; Simon et al., 2012; Zhang et al., 2012; Mochizuki-Kashio et al., 2015; Gangat et al., 2018)
<i>Suz12</i>	Deletion/down-regulation (RNA)/missense mutations/LOF mutations	MDS/MPN (human), AML (human), T-ALL (human), and ETP ALL (human)	(Brecqueville et al., 2012; Ntziachristos et al., 2012; Puda et al., 2012; Score et al., 2012; Zhang et al., 2012)
<i>Eed</i>	Deletion/down-regulation (RNA)/missense mutations/LOF mutations	MDS (mouse), leukemia (mouse), MDS/MPN (human), ETP ALL (human), and CMML (human)	(Score et al., 2012; Ueda et al., 2012, 2016; Zhang et al., 2012)
<i>Jarid2</i>	Deletion/down-regulation (RNA)/missense mutations	MDS/MPN (human), AML (human), T-ALL (human), and leukemia (human)	(Puda et al., 2012; Score et al., 2012; Simon et al., 2012; Su et al., 2015)
<i>Aebp2</i>	Deletion/down-regulation (RNA)	MDS/MPN (human) and AML (human)	(Puda et al., 2012)

CMML, chronic myelomonocytic leukemia; T-ALL, T-cell ALL.

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