

CANCER GENOME CHANGES

- **Point mutations** (see file on “kataegis”) (Kandoth, McLellan et al. 2013)
- **Mobile element insertions** (Shi, Seluanov et al. 2007; Lee, Iskow et al. 2012; Abyzov, Iskow et al. 2013; Shukla, Upton et al. 2013; Xie, Mates et al. 2013; Goodier 2014; Patnala, Lee et al. 2014; Tubio, Li et al. 2014)
 - Mobile elements as complex structural variation (CSV) hotspots (Kolomietz, Meyn et al. 2002; Ruiz-Herrera and Robinson 2008; Brueckner, Sagulenko et al. 2012)
 - Novel LINE insertions are frequent in epithelial cancers but are not commonly observed in hematopoietic tumors or glioblastomas (Iskow, McCabe et al. 2010; Lee, Iskow et al. 2012; Solyom, Ewing et al. 2012; Helman, Lawrence et al. 2014).
 - ERVs & LTR elements (Dupressoir and Heidmann 1997; Lee, Haruna et al. 1999; Sin, Huh et al. 2006; Kim, Kim et al. 2008; Ruprecht, Mayer et al. 2008; Singh, Kaye et al. 2009; Belancio, Roy-Engel et al. 2010; Romanish, Cohen et al. 2010; Goering, Ribarska et al. 2011; Sinibaldi-Vallebona, Matteucci et al. 2011; Stoye 2012; Agoni, Guha et al. 2013; Katoh and Kurata 2013; Kreimer, Schulz et al. 2013; St Laurent, Shtokalo et al. 2013; Katoh 2014)
- **Complex structural variations (CSVs)** (see file on “chromothripsis”) (Iarovaia, Shkumatov et al. 2004; Zhang, Gostissa et al. 2010; Berger, Lawrence et al. 2011; Chiarle, Zhang et al. 2011; Gostissa, Alt et al. 2011; Stephens, Greenman et al. 2011; Hall and Quinlan 2012; Krumm, Sudmant et al. 2012; Quinlan and Hall 2012; Bassaganyas, Bea et al. 2013; Boeva, Jouannet et al. 2013; Chiarle 2013; Malhotra, Lindberg et al. 2013; Osborne 2014) (Ganem, Storchova et al. 2007; Janssen, van der Burg et al. 2011; Crasta, Ganem et al. 2012; Ganem and Pellman 2012; Rausch, Jones et al. 2012; Vitre and Cleveland 2012; Hayashi and Karlseder 2013; Zhang, Leibowitz et al. 2013)
 - Common fragile sites (Le Beau 1986; Yunis 1987; Moriarty and Webster 2003; Ishii and Furukawa 2004; Glover 2006; O’Keefe and Richards 2006; Pichiorri, Ishii et al. 2008; Burrow, Williams et al. 2009; Franchitto and Pichierri 2011; Franchitto 2013)
 - APOBEC mutagenesis and chromosome breakage (Burns, Lackey et al. 2013; Roberts, Lawrence et al. 2013)
 - RAG-mediated translocations (Kinoshita, Tashiro et al. 1998; Bothmer, Robbiani et al. 2011; Bothmer, Rommel et al. 2013)
- **Aneuploidy** (Bharadwaj and Yu 2004; Rajagopalan and Lengauer 2004; Lingle, Lukasiewicz et al. 2005; Weaver and Cleveland 2006; Ganem, Storchova et al. 2007; Herrera, Prada et al. 2008; Thompson, Bakhoun et al. 2010; Vitre and Cleveland 2012; Forsberg, Rasi et al. 2014) (Dekanty, Barrio et al. 2012; Pfau and Amon 2012; Dekanty and Milan 2013). Aneuploidy can result from cytoplasmic interactions between cells (“entosis”) (Janssen and Medema 2011; Krajcovic, Johnson et al. 2011; Maiato and Logarinho 2014).
- **Exosome intercellular RNA transfer and cancer** (Valadi, Ekstrom et al. 2007; Sethi and Sholl 2011; de Jong, Verhaar et al. 2012; Rak and Guha 2012; Zhou and Mo 2012; Kucharzewska and Belting 2013; Morello, Minciacchi et al. 2013; Mu, Rana et al. 2013; Ogorevc, Kralj-Iglic et al. 2013; Soekmadji, Russell et al. 2013; Turchinovich, Samatov et al. 2013; Chen, Liu et al. 2014)

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