**Figure 1 – source data 3:** Ferret influenza transmission studies via direct contact using human isolates. Transmission was determined using seroconversion (SC) and/or viral isolation (VI).

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| --- | --- | --- | --- | --- | --- |
| **Subtype** | **Isolate** | | **Successful transmissions – SC/VI (VI only)** | **Ferrets exposed** | **Reference** |
| **H1N1** | A/Brisbane/59/2007 | | **3** | **3** | (Maines et al. 2009) |
|  | A/Brisbane/59/2007 | | **2** | **2** | (Hurt et al. 2010) |
|  | A/Brisbane/59/2007 | | **1** | **1** | (The SJCEIRS Working Group 2013) |
|  | A/Brisbane/59/2007 | | **4** | **4** | (Abed et al. 2011) |
|  | A/Brisbane/59/2007 | | **4** | **4** | (Ellebedy et al. 2011) |
|  | A/New Caledonia-like | | **12** | **12** | (Herlocher et al. 2004) |
| **H3N2** | A/Texas/50/2012 | | **3** | **3** | (Belser et al. 2013) |
|  | A/Brisbane/10/2007 | | **2** | **2** | (Lee et al. 2013) |
|  | A/Bethesda/NIH12- 0/2008 | | **3** | **4** | (Memoli et al. 2010) |
|  | A/Fukui/20/2004 | | **2** | **2** | (Hurt et al. 2010) |
|  | A/Wyoming/3/2003**RG** | | **2** | **2** | (Langlois et al. 2013) |
|  | A/Panama/2007/1999 | | **2** | **2** | (Gustin et al. 2011) |
|  | A/Memphis/14/1998 | | **2** | **2** | (Wan et al. 2008) |
|  | A/Sydney/5/1997 | | **5** | **5** | (Herlocher et al. 2001) |
|  | A/Sydney/5/1997 | | **12** | **12** | (Herlocher et al. 2002) |
|  | A/Sydney/5/1997 | | **3** | **4** | (Oxford et al. 2007) |
|  | A/Sydney/5/1997 | | **4 (1)** | **4** | (Oxford et al. 2007) |
|  | A/Wuhan/359/1995 | | **11** | **11** | (Herlocher et al. 2004) |
|  | A/Wuhan/359/1995**RG** | | **2** | **2** | (Yen et al. 2005) |
|  | A/Wuhan/359/1995**RG** | | **3** | **3** | (Yen et al. 2011) |
|  | A/LA/1/1987 | | **5** | **5** | (Herlocher et al. 2001) |
|  | A/Victoria/3/1975**RG** | | **6 (5)** | **6** | (Roberts et al. 2011) |
| **pH1N1** | A/Bethesda/NIH106-D0/2009 | | **4** | **4** | (Memoli et al. 2011) |
|  | A/Bethesda/NIH107-D0/2009 | | **4** | **4** | (Memoli et al. 2011) |
|  | A/California/04/2009 | | **3** | **3** | (Maines et al. 2009) |
|  | A/California/04/2009**RG** | | **1** | **1** | (Seibert et al. 2010) |
|  | A/California/04/2009 | | **3** | **3** | (Yen et al. 2011) |
|  | A/California/04/2009**RG** | | **3** | **3** | (Zanin et al. 2015) |
|  | A/California/04/2009**RG** | | **3** | **3** | (Karlsson et al. 2015) |
|  | A/California/04/2009 | | **2** | **2** | (Hale et al. 2010) |
|  | A/California/04/2009**RG** | | **2** | **2** | (Wong et al. 2012) |
|  | A/California/07/2009 | | **3** | **3** | (Zhu et al. 2013) |
|  | A/California/07/2009 | | **3** | **3** | (Oh et al. 2014) |
|  | A/California/07/2009 | | **3** | **3** | (Oh et al. 2014) |
|  | A/California/07/2009 | | **12** | **12** | (Oh et al. 2014) |
|  | A/California/07/2009 | | **12** | **12** | (Oh et al. 2014) |
|  | A/Denmark/524/2009 | | **2** | **2** | (Duan et al. 2010) |
|  | A/England/195/2009**RG** | | **3** | **3** | (van Doremalen et al. 2011) |
|  | A/England/195/2009**RG** | | **2** | **2** | (Roberts et al. 2012) |
|  | A/England/195/2009**RG** | | **3** | **3** | (Roberts et al. 2012) |
|  | A/HH/01/2009**RG** | | **1** | **1** | (Seibert et al. 2010) |
|  | A/HK/415742/2009 | | **3** | **3** | (Yen et al. 2011) |
|  | A/Mexico/4482/2009 | | **3** | **3** | (Maines et al. 2009) |
|  | A/Quebec/144147/2009**RG** | | **4** | **4** | (Pizzorno et al. 2012) |
|  | A/Quebec/144147/2009**RG** | | **4** | **4** | (Abed et al. 2014) |
|  | A/Quebec/147023/2009 | | **4** | **4** | (Hamelin et al. 2011) |
|  | A/Tasmania/2004/2009 | | **7** | **8** | (Guarnaccia et al. 2013) |
|  | A/Tennessee/1-560/2009 | | **4 (3)** | **4** | (Ellebedy et al. 2011) |
|  | A/Texas/15/2009 | | **3** | **3** | (Maines et al. 2009) |
| **H2N2** | A/England/10/1967 | | **3** | **3** | (Pappas et al. 2015) |
|  | | A/Albany/6/1958 | **3** | **3** | (Pappas et al. 2010) |
|  | | A/El Salvador/2/1957 | **1 (0)** | **3** | (Pappas et al. 2010) |
| **H7N9** | A/Anhui/1/2013 | | **4** | **4** | (Belser et al. 2013) |
|  | A/Anhui/1/2013 | | **4 (3)** | **4** | (Zaraket et al. 2015) |
|  | A/Shanghai/1/2013 | | **4** | **4** | (Belser et al. 2013) |
|  | A/Shanghai/1/2013 | | **4** | **4** | (Yen et al. 2014) |
|  | A/Shanghai/2/2013 | | **3** | **3** | (Zhu et al. 2013) |
| **H5N1** | A/Turkey/65-596/2006 | | **0** | **2** | (Yen et al. 2007) |
|  | A/Indonesia/5/2005 | | **0** | **3** | (Maines et al. 2006) |
|  | A/Vietnam/HN30408/2005 | | **0** | **3** | (Maines et al. 2006) |
|  | A/Vietnam/JP36-2/2005 | | **2** | **4** | (Yen et al. 2007) |
|  | A/Thailand/16/2004**RG** | | **0** | **3** | (Jackson et al. 2009) |
|  | A/Vietnam/1203/2004 | | **0** | **4** | (Yen et al. 2007) |
|  | A/Vietnam/1203/2004**RG** | | **1 (0)** | **3** | (Maines et al. 2011) |
|  | A/Vietnam/1203/2004**RG** | | **0** | **4** | (Zaraket et al. 2013) |
|  | A/Hong Kong/213/2003 | | **1 (0)** | **4** | (Yen et al. 2007) |
|  | A/Hong Kong/486/1997 | | **2 (1)** | **2** | (Maines et al. 2006) |
|  | A/Hong Kong/486/1997**RG** | | **2 (1)** | **2** | (Maines et al. 2011) |
| **H7N2** | A/NY/107/2003 | | **3** | **3** | (Belser et al. 2008) |
| **H7N7** | A/NL/219/2003 | | **0** | **3** | (Belser et al. 2008) |
|  | A/NL/230/2003 | | **2** | **3** | (Belser et al. 2008) |
|  | A/NL/230/2003 | | **2** | **3** | (Belser et al. 2008) |
| **H9N2** | A/Hong Kong/33982/2009 | | **1** | **2** | (The SJCEIRS Working Group 2013) |
|  | A/Hong Kong/1073/1999 | | **1** | **2** | (The SJCEIRS Working Group 2013) |
| **H7N3** | A/Mexico/InDRE7218/2012 | | **3** | **3** | (Belser et al. 2013) |
|  | A/Canada/504/2004 | | **2** | **3** | (Belser et al. 2008) |

**RG**Isolate rescued using reverse genetics.

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