## Type D SIMIAN RETROVIRUSES (SRV)

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<th>Animal Group(s) Affected</th>
<th>Transmission</th>
<th>Clinical Signs</th>
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<th>Treatment</th>
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<td>Macaques are natural host; langurs, squirrel monkeys, baboons, talapoins</td>
<td>Direct contact; transplacentally</td>
<td>Diarrhea, weight loss, fever, splenomegaly, lymphadenopathy, anemia, neutropenia, lymphopenia, cutaneous fibrosarcoma, and malignant lymphomas</td>
<td>Fatal disease</td>
<td>None</td>
<td>Test and remove/isolate positive animals</td>
<td>Yes</td>
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**Fact Sheet compiled by:** Sam Rivera; updated by Natalie Mylniczenko

**Sheet completed on:** 1 June 2011, updated September 2013

**Fact Sheet Reviewed by:** William Switzer; Sam Rivera

**Susceptible animal groups:** Macaques are natural hosts; langurs, squirrel monkeys, baboons, and talapoins also susceptible. Largely, this disease is one of laboratory colonies.

**Causative organism:**
- Simian type D retroviruses (SRV); seven genotypes recognized; SRV-1 – SRV-7
- Genus (Betaretroviruses)

**Zoonotic potential:** Zoonotic infection, serologic evidence of human infection in one study.

**Distribution:** Mostly in Asian macaques and langurs

**Incubation period:** Unknown, life-long infection

**Clinical signs:** Immunosuppressive disease (neutropenia and lymphopenia), generalized lymphadenopathy, diarrhea, weight loss, anemia, opportunistic infections. SRV-1 causes malignant lymphomas and SRV-2 abdominal fibromatosis, and subcutaneous fibrosarcomas.

**Post mortem, gross, or histologic findings:** Splenomegaly, hyperplastic lymphoid follicles, follicular atrophy, fibrosarcomas, polymyositis, nonsuppurative enteritis, sialoadenitis, bone marrow hyperplasia; SRV2: retroperitoneal fibromatosis, subcutaneous fibrosarcomas.

**Diagnosis:** Serology (ELISA, Western blot for confirmation), PCR, virus isolation. Some animals can have latent infection and be antibody negative. High false positive rate with standard ELISA but newer microbead-based immunoassays have improved specificity.

**Material required for laboratory analysis:** Whole blood, serum/plasma, saliva, urine, tissues.

**Relevant diagnostic laboratories:**
- Pathogen Detection Laboratory
- California National Primate Research Center
- University of California
- Road 98 & Hutchison,
- Davis, California 95616
- (530) 752-8242
- Fax: (530) 752-4816
- PDL@primate.ucdavis.edu
**Type D SIMIAN RETROVIRUSES (SRV)**

| Virus Reference Laboratories, Inc. | 7540 Louis Pasteur Road  
San Antonio, Texas 78229  
(210) 614-7350  
(210) 614-7355 |
|----------------------------------|--------------------------------------------------|
| Primate Diagnostic Services Laboratory (PDSL) | Washington National Primate Research Center  
University of Washington  
Seattle, Washington 98195-7330  
diagnostic@wanprc.org |
| Zoologix Inc. | 9811 Owensmouth Avenue, Suite 4  
Chatsworth, California 91311-3800  
818-717-8880  
Fax: 818-717-8881  
info@zoologix.com |

**Treatment:** None

**Prevention and control:** Test and remove/isolate positive animals.

**Suggested disinfectant for housing facilities:** 70% ethanol, formalin, 10% household bleach (sodium hypochlorite), Lysol, and most lipophilic detergents can be used.

**Notification:** None at this time.

**Measures required under the Animal Disease Surveillance Plan:** None at this time.

**Measures required for introducing animals to infected animal:** Not recommended.

**Conditions for restoring disease-free status after an outbreak:** Life-long infection so disease-free status cannot be restored.

**Experts who may be consulted:**
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**References:**


