

```

{
  "id": "obj.1270",
  "name": "HCV1a [taxID:31646] ledipasvir [PubChem:67505836] resistance SNP
[S0:0000694] detection",
  "version": "1.1",
  "createdby": "hadley_king@gwmail.gwu.edu",
  "created": "Jan 24, 2017 09:40:17",
  "modified": "Mar 02, 2017 11:58:20",
  "digital_signature": "905d7fce3f3ac64c8ea86f058ca71658",
  "verification_status": "unreviewed",
  "publication_status": "draft",
  "usability_domain": [
    "Identify baseline single nucleotide polymorphisms (SNPs[S0:0000694]),
    insertions[S0:0000667], and deletions[S0:0000045] that correlate with
    reduced ledipasvir[PubChem:67505836] antiviral drug efficacy in Hepatitis C
    virus subtype 1",
    "Identify treatment emergent amino acid substitutions[S0:0000048] that
    correlate with antiviral drug treatment failure",
    "Determine whether the treatment emergent amino acid
substitutions[S0:0000048]
    identified correlate with treatment failure involving other drugs against
    the same virus"
  ],
  "authors": [
    {
      "orcid": "0000-0003-1409-4549"
    },
    {
      "name": "Eric Donaldson"
    }
  ],
  "description_domain": {
    "keywords": [
      "antiviral_resistance",
      "SNP"
    ],
    "xref": [
      "S0:0000694",
      "S0:0000667",
      "S0:0000045",
      "PubChem:67505836",
      "S0:0000048",
      "taxID:31646",
      "PMID:25123381",
      "PMID:26508693"
    ],
    "pipeline_steps": [
      {
        "tool_name": "HIVE_hexagon",
        "tool_desc": "Alignment of reads to a set of references",

```

```

        "tool_version": "1.3",
        "tool_package": "",
        "step_number": "1",
        "input_uri_list": [
            "http://www.ncbi.nlm.nih.gov/nuccore/CP000139.1",
            "http://www.ncbi.nlm.nih.gov/nuccore/FP929042.1",
            "http://www.ncbi.nlm.nih.gov/nuccore/FP929046.1",
            "http://www.ncbi.nlm.nih.gov/nuccore/FP929045.1",
            "http://www.ncbi.nlm.nih.gov/nuccore/FP929043.1",
            "http://www.ncbi.nlm.nih.gov/nuccore/FP929048.1",
            "hive://nuc-read/514683",
            "hive://nuc-read/514682"
        ],
        "output_uri_list": [
            "hive://data/514769/allCount-aligned.csv"
        ]
    },
    {
        "tool_name": "HIVE_heptagon",
        "tool_desc": "variant calling",
        "tool_version": "1.3",
        "tool_package": "",
        "step_number": "2",
        "input_uri_list": [
            "hive://data/514769/dnaAccessionBased.csv"
        ],
        "output_uri_list": [
            "hive://data/514801/SNPPProfile.csv",
            "hive://data/14769/allCount-aligned.csv"
        ]
    }
]
},
"execution_domain": {
    "script":
"https://hive.biochemistry.gwu.edu/workflows/antiviral resistance detection hive.sh"
,
    "pipeline_version": "2.0",
    "platform": "hive",
    "driver": "shell",
    "prerequisites": [
        {"name": "HIVE_hexagon", "version": "1.3"},
        {"name": "HIVE_heptagon", "version": "1.3"}
    ],
    "env_parameters": [
        "HIVEv1.3"
    ]
},
"parametric_domain": {
    "heptagon_divergence_threshold_percent": "30",
    "hexagon_minimum_coverage": "0.15",

```

```

    "hexagon_seed": "14",
    "heptagon_freq_cutoff": "0.10",
    "hexagon_minimum_match_len": "66"
  },
  "io_domain": {
    "reference_uri_list": [
      "http://www.ncbi.nlm.nih.gov/nuccore/CP000139.1",
      "http://www.ncbi.nlm.nih.gov/nuccore/FP929042.1",
      "http://www.ncbi.nlm.nih.gov/nuccore/FP929046.1",
      "http://www.ncbi.nlm.nih.gov/nuccore/FP929045.1",
      "http://www.ncbi.nlm.nih.gov/nuccore/FP929043.1",
      "http://www.ncbi.nlm.nih.gov/nuccore/FP929048.1"
    ],
    "input_uri_list": [
      "hive://nuc-read/514683",
      "hive://nuc-read/514682"
    ],
    "output_uri_list": [
      "hive://data/514769/dnaAccessionBased.csv",
      "hive://data/514801/SNPProfile.csv",
      "hive://data/514769/allCount-aligned.csv"
    ]
  },
  "error_domain": [
    "false negative discovery < 0.000001"
  ]
}

```