ANSWER

As expected, when we look in the *shards* directory, we see the two documents representing the shards:

```
$ mongo localhost:27019/config
MongoDB shell version: 3.0.0
connecting to: localhost:27019/config
configsvr> db.shards.find()
{ "_id" : "s1", "host" : "s1/genome_svr1:27501,genome_svr2:27502,genome_svr2:27503" }
{ "_id" : "s2", "host" : "s2/genome_svr4:27601,genome_svr5:27602,genome_svr5:27603" }
```

Our first task will be to update these documents.

```
configsvr> var s1 = db.shards.findOne( { _id : "s1" } )
configsvr> var s2 = db.shards.findOne( { _id : "s2" } )
configsvr> s1.host = "localhost:27501"
localhost:27501
configsvr> s2.host = "localhost:27601"
localhost:27601
configsvr> db.shards.save(s1)
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
configsvr> db.shards.save(s2)
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
configsvr> db.shards.find()
{ "_id" : "s1", "host" : "localhost:27501" }
{ "_id" : "s2", "host" : "localhost:27601" }
configsvr>
```

OK, let's kill that process and start up our shards.

```
ps ax | grep mongo | grep 27019 | read cfgProcessId otherStuff
kill $cfgProcessId
```

OK, let's start up our servers and load them with data.

```
mongod --dbpath temp_mart/s1 --logpath temp_mart/s1.log --port 27501 --fork
mongod --dbpath temp_mart/s2 --logpath temp_mart/s2.log --port 27601 --fork
mongorestore --port 27501 gene_backup/s1
mongorestore --port 27601 gene_backup/s2
```

Next, we'll start our config server back up, and then spin up a mongos.

```
mongod --dbpath temp_mart/cfg --logpath temp_mart/cfg.log --fork --port 27019 --config
svr
mongos --configdb localhost:27019 --logpath temp_mart/mongos.log --fork
mongo
```

```
mongos> sh.status() // see what our cluster looks like
mongos> use snps
mongos> var x = db.elegans.aggregate( [ { $match : { N2 : "T" } } , { $group : { _id:"
$N2" , n : { $sum : 1 } } } ] ).next(); print( x.n )
47664
```

And now we have demonstrated that we've set up our cluster.