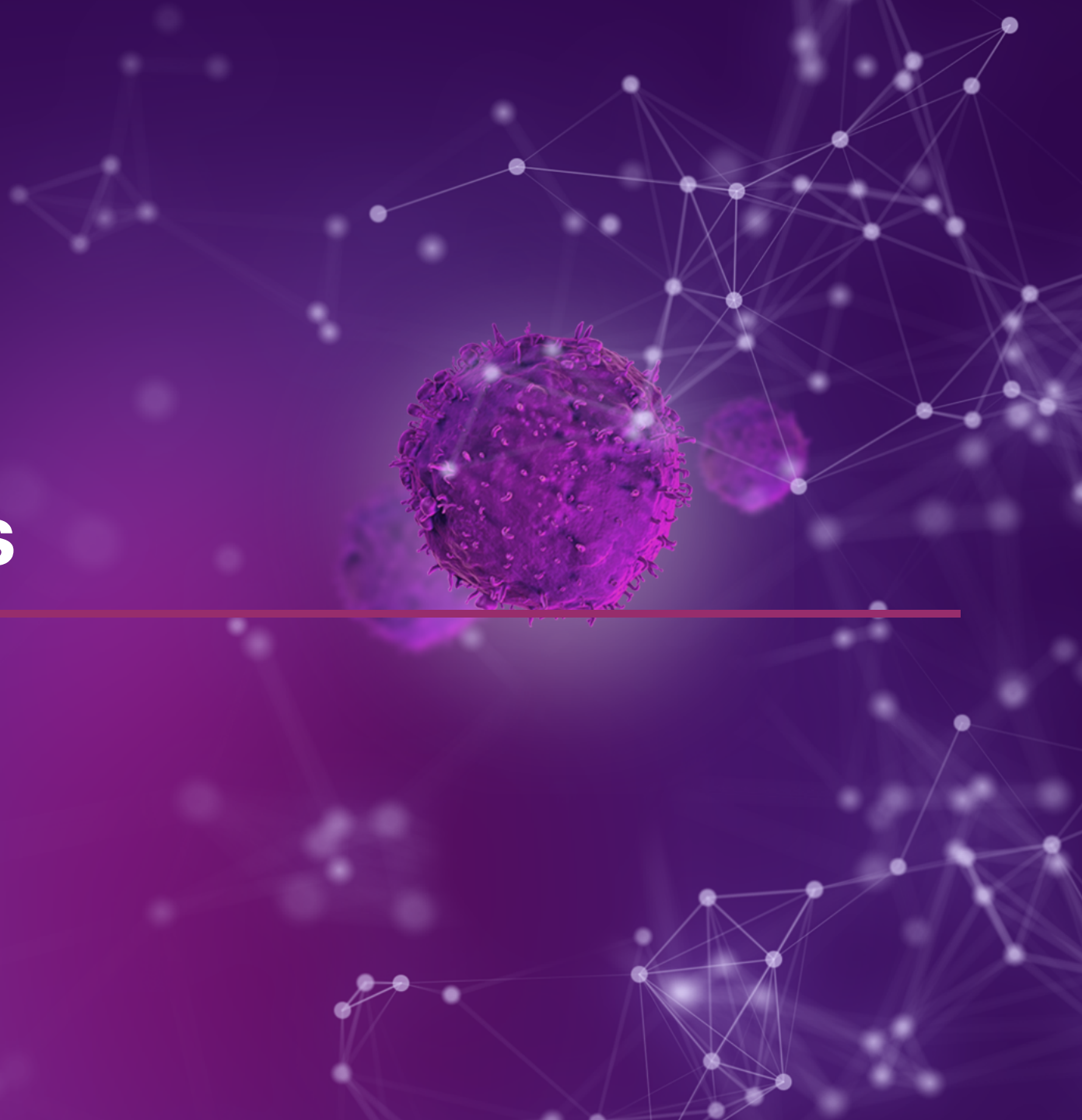


ardigen

# No code REST APIs

---

Karol Horosin



# Why?

# Gene Regulation Platform: siRNA module

Database of effective cross-species siRNAs for experiment design

Based on Ensembl Release 102

[read more](#)



## siRNA selector

siRNA selector provides a workflow for easy to use and systematic way to display effective siRNAs targeting selected transcript(s) along with the accompanying information about cross-species activity and off-target effects.

GO

# siRNA selector

## 1. Select a gene

### Gene

**BRCA1** BRCA1 DNA repair associated homo\_sapiens (ENSG00000012048)

[Gene details in ensembl](#)

## 2. Select a transcript <sup>i</sup>

Type to Search

Clear

Selected	Transcript	Biotype	Transcript Tsl	Transcript Appris
	<b>BRCA1-203</b> ENST00000357654 ENSP00000350283 (protein)	protein_coding	tsl1 (assigned to previous version 7)	alternative2
✓	<b>BRCA1-210</b> ENST00000471181 ENSP00000418960 (protein)	protein_coding	tsl1 (assigned to previous version 6)	principal4
	<b>BRCA1-201</b> ENST00000352993 ENSP00000312236 (protein)	protein_coding	tsl5	
	<b>BRCA1-202</b>	protein_coding	tsl1	

## 3. Filter siRNAs

### Min efficacy score <sup>i</sup>

0,8

### siRNA length <sup>i</sup>

all

# Goals

**Rapid development**

**Low infrastructure cost**

**Quick turnaround**



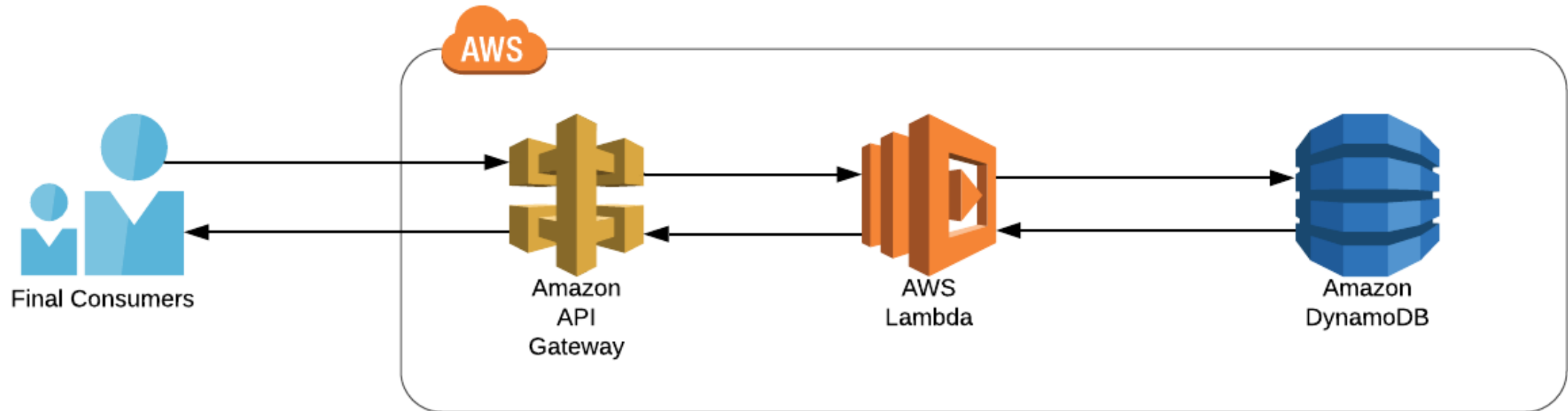
**Easy maintenance**

# Limitations

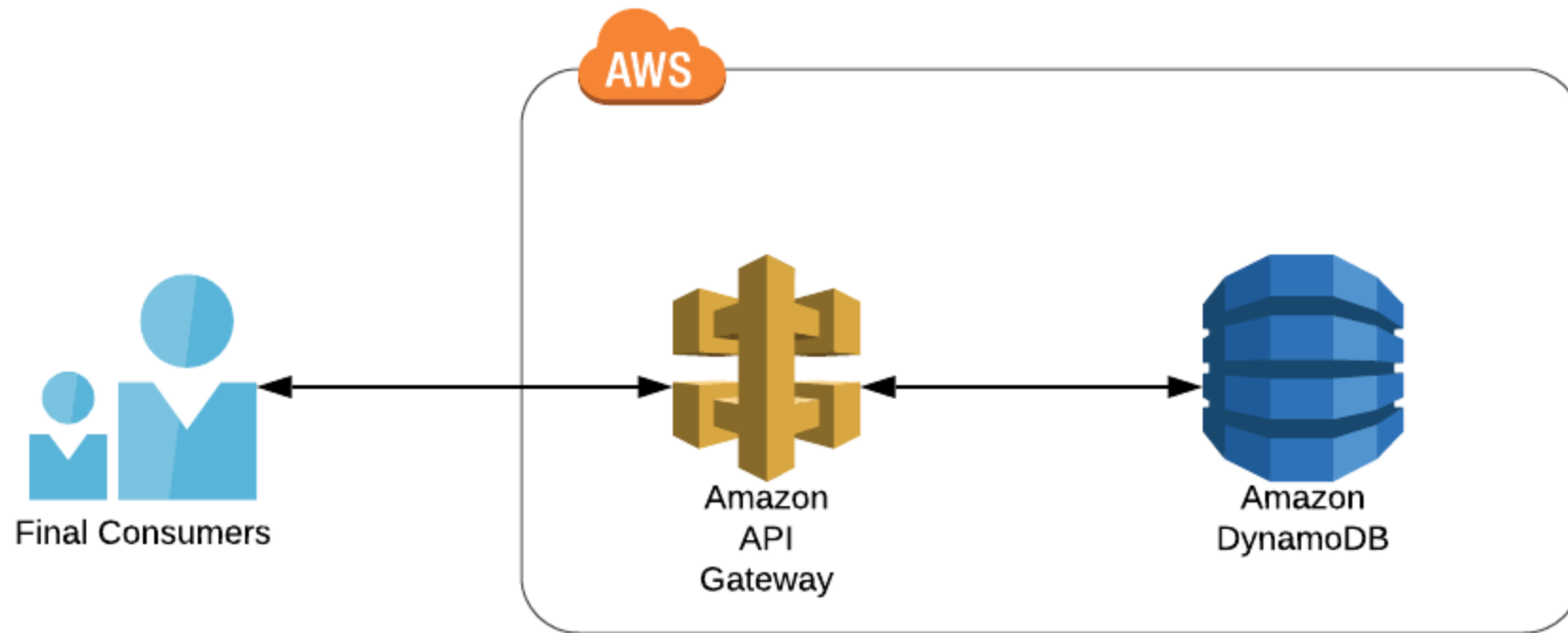
**Over 25GB - \$0.25 per GB**

**6MB request size**

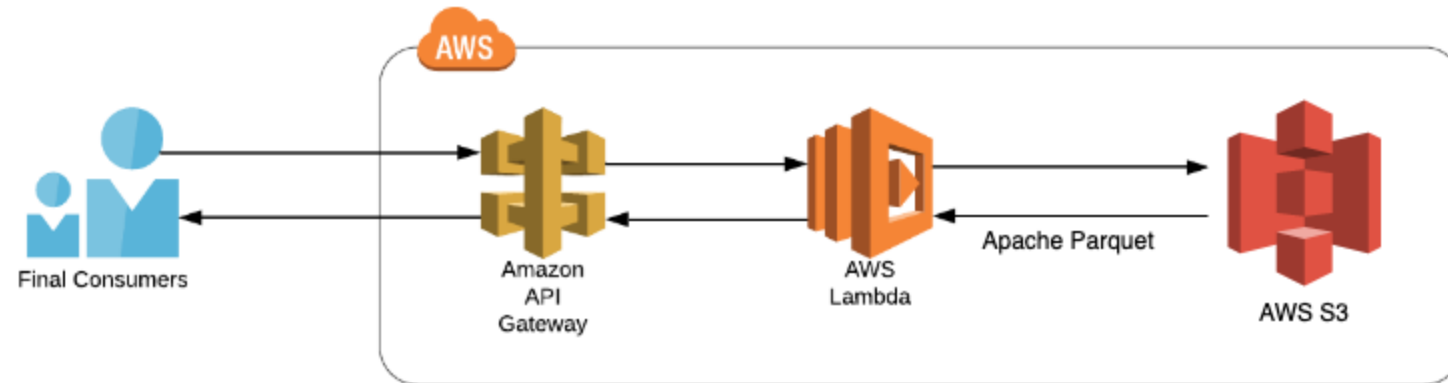
# Typical architecture



# This architecture



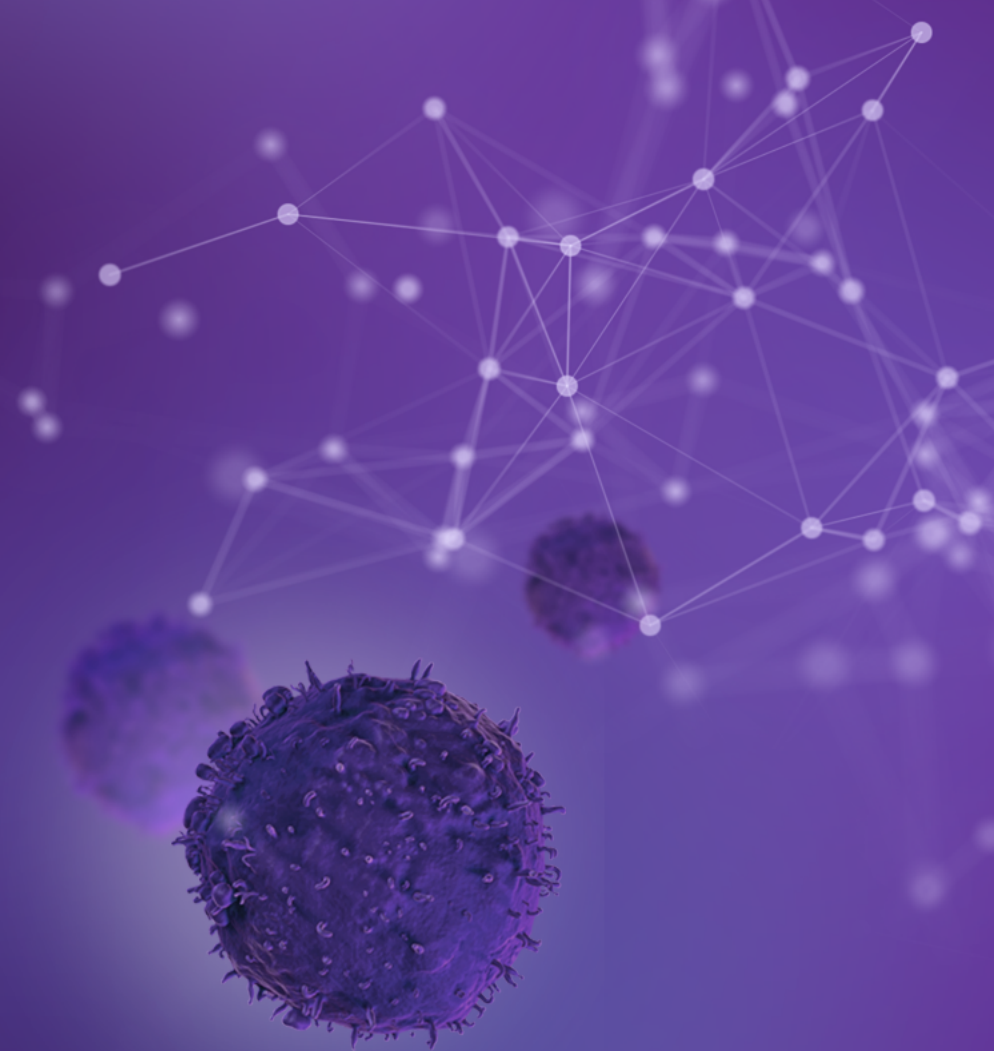
# Applied architecture



# Karol Horosin

Software Engineer

[karol.horosin@ardigen.com](mailto:karol.horosin@ardigen.com)





Setting account permissions to use CloudWatch Logs

<https://gist.github.com/villasv/4f5b62a772abe2c06525356f80299048>

Similar scope, using SAM

<https://www.andmore.dev/blog/build-serverless-api-with-no-lambda/>

Using GUI from amazon

<https://aws.amazon.com/blogs/compute/using-amazon-api-gateway-as-a-proxy-for-dynamodb/>

Polish GUI article

<https://chmurowisko.pl/serverless-bezposredni-dostep-do-dynamodb-z-api-gateway/>

Using GUI

<https://medium.com/@likhita507/using-api-gateway-to-get-data-from-dynamo-db-using-without-using-aws-lambda-e51434a4f5a0>

Useful article with similar example but many errors in yaml

<https://itnext.io/setting-up-api-gateway-with-dynamodb-using-cloudformation-a8ab3e70f494>

Examples from AWS

<https://docs.aws.amazon.com/apigateway/latest/developerguide/api-gateway-swagger-extensions-integration.html>

