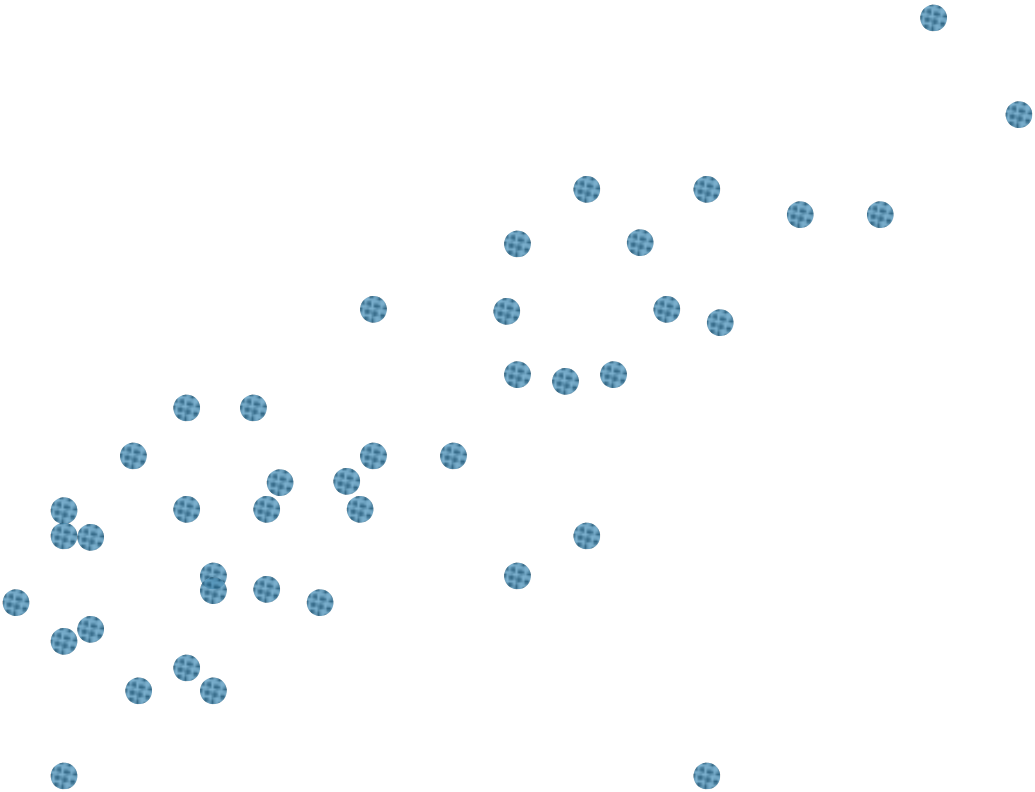
LET'S GET RID OF THESE POSTERIOR CORRELATIONS



$$y = \alpha + \beta x$$

with convergence

- Scaling x to unit variance

- Centering both x and y values

Scaling and shifting parameters can help

$$\tilde{y}_i = y_i - \bar{y}$$

$$\tilde{x}_i = \frac{x_i - \bar{x}}{sd(x)}$$

```
mean_y = mean(d2$height)
```

```
b ~ lognormal(0, 1),
```

```
sigma ~ exponential(1)),
```

Model

```
data = list(
```

```
mu <- a + b * x,
```

```
y ~ normal(mu, sigma),
```

```
a ~ normal(0, 1),
```

```
# Pre-calculate means and sds
```

```
x = (d2$weight - mean_x)/sd_x),
```

```
iter = 1000, chains = 4, cores = 4)
```

```
mean_x = mean(d2$weight)
```

```
y =  d2$height - mean_y,
```

ulam(alist(

```
sd_x = sd(d2$weight)
```

$$\tilde{y} = \alpha + \beta\tilde{x}$$

$$\alpha == 0$$