

lab 6 Homework: Write a R Function

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Homework 6 Write a function

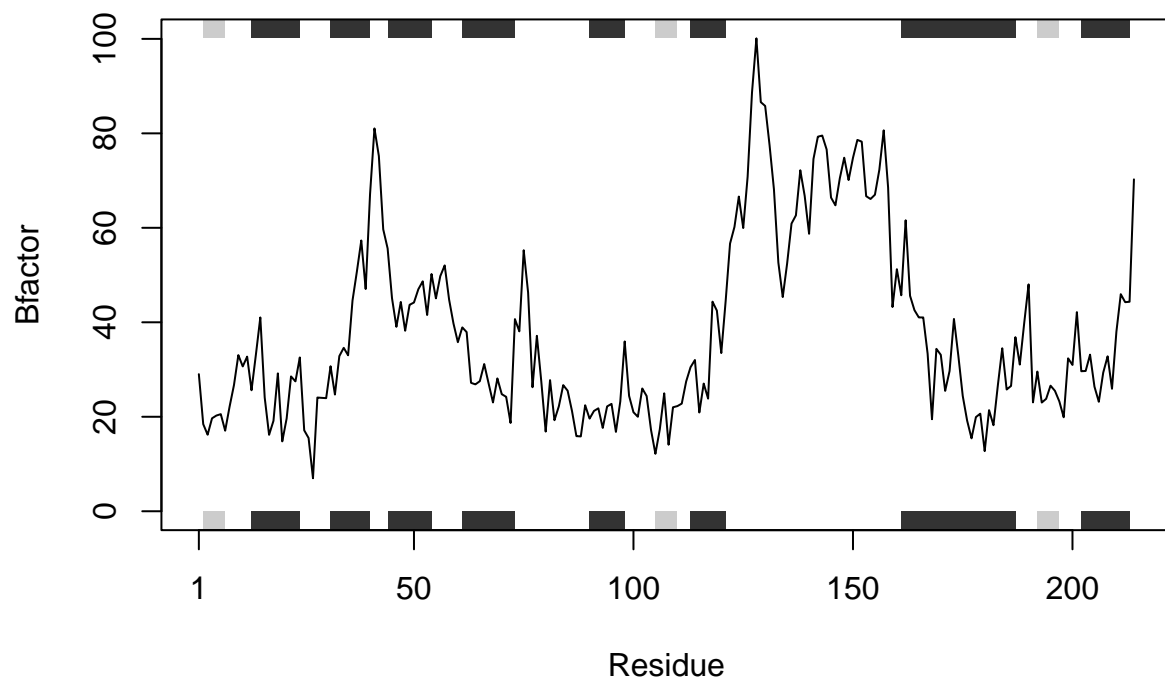
Analyzing protein drug interactions by reading in any protein PDB data and outputs a plot for the specified protein.

```
# this function takes in protein PDB data as string and outputs a plot for the input protein  
# data_name: string, the name of the data  
# output: a figure  
draw_protein = function(data_name){  
  data = read.pdb(data_name) # read in the data  
  data.chainA = trim.pdb(data, chain="A", eley = "CA")  
  data.b = data.chainA$atom$b  
  plotb3(data.b, sse= data.chainA, typ="l", ylab="Bfactor")  
}
```

Here is a demonstration of how to use the function:

```
library(bio3d)  
# call the function with data name as the parameter  
draw_protein("4AKE")
```

Note: Accessing on-line PDB file



```
draw_protein("1AKE")
```

```
## Note: Accessing on-line PDB file
## PDB has ALT records, taking A only, rm.alt=TRUE
```



```
draw_protein("1E4Y")
```

```
## Note: Accessing on-line PDB file
```

