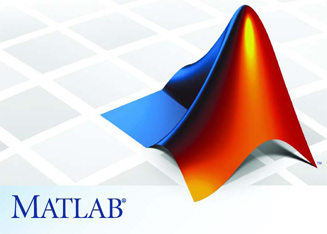
**A4 PROTEIN ALZHEIMERS TEST**

**EK 127 FALL 2012 PROJECT 2**



CARLTON DUFFETT  
SAM CHENEY  
LAB SECTION C6

PROFESSOR ATTAWAY

WE CERTIFY THAT ALL WORK PRESENTED HERE IS OUR OWN AND THAT NO OUTSIDE ASSISTANCE WAS RECEIVED IN THE DEVELOPMENT OF THIS CODE.

CARLTON DUFFETT \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE \_\_\_\_\_\_\_\_\_

SAM CHENEY \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE \_\_\_\_\_\_\_\_\_

HANDED IN TO PROJECT HAND-IN FOLDER, SECTION C6. FOLDER TITLED: “CARLTON DUFFETT SAM CHENEY PROJECT 2”

Main.m:

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%A4 PROTEIN ALZHEIMERS TEST

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%Created 8-Nov-2012

%Developed By:

%Carlton Duffett

%Sam Cheney

clear

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%Create rna2amino Structure

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%read in data from aminotable.dat

data = DNAread;

%create rna2amino structure

for i = 1:64

rna2amino.(data(i,1)).(data(i,2)).(data(i,3)) = data(i,4);

end

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%Control Data

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%open ControlData.dat

fid = fopen('ControlData.dat');

if fid == -1

fprintf('File Open Failed\n')

else

%read ControlData.dat

count = 1;

controldna = zeros(1,5000); %Preallocate

while ~feof(fid)

aline = fgetl(fid);

if count == 2

%Primer strand

primer = upper(aline(5:end));

elseif count >= 4

%Control DNA strand

indexend = strfind(aline,' -') - 1;

index = str2double(aline(1:indexend));

startline = strfind(aline,'- ') + 2;

aline = upper(aline(startline:end));

aline = strrep(aline,' ','');

controldna(index:(index + 49)) = aline;

end

count = count + 1;

end

end

%close ControlData.dat

close = fclose(fid);

if close == -1

fprintf('File Close Failed\n')

end

%Transcribe Control DNA

controlrna = Transcription(controldna,primer);

%Translate Control DNA

controlpseq = Translation(controlrna,rna2amino);

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%Patient Information

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%open patientinfo.dat

fid = fopen('patientinfo.dat');

if fid == -1

fprintf('File Open Failed\n')

else

%Read in information

%preallocate structure

PatientInfo(10) = struct('Name','','Age','','Sex','', ...

'DOB',struct('Day','','Month','','Year',''),'History','');

%Create structure

for i = 1:10

fgetl(fid);

aline = fgetl(fid);

PatientInfo(i).Name = aline(6:end);

aline = fgetl(fid);

PatientInfo(i).Age = aline(end-1:end);

aline = fgetl(fid);

PatientInfo(i).Sex = aline(end);

aline = fgetl(fid);

PatientInfo(i).DOB.Day = aline(8:9);

PatientInfo(i).DOB.Month = aline(5:6);

PatientInfo(i).DOB.Year = aline(11:end);

aline = fgetl(fid);

PatientInfo(i).History = aline(end);

end

end

%close patientinfo.dat

close = fclose(fid);

if close == -1

fprintf('File Close Failed\n')

end

run = 1;

while run > 0

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%Prompt User for Patient Number

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%prompt user

patientid = input('Enter patient ID number: ');

%error check

while patientid > 10 || patientid < 1

patientid = input('Enter a VALID patient ID number (1-10): ');

end

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%Load Patient's DNA

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%open PatientsDNA.dat

fid = fopen('PatientsDNA.dat');

if fid == -1

fprintf('File Open Failed\n')

else

%Get specific patient DNA

for i = 1:patientid

aline = fgetl(fid);

end

patientdna = upper(aline);

end

%close PatientsDNA.dat

close = fclose(fid);

if close == -1

fprintf('File Close Failed\n')

end

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%Test Patient DNA

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%Transcription

patientrna = Transcription(patientdna,primer);

%Translation

[patientpseq mutation] = Translation(patientrna,rna2amino,controlpseq);

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%Output Result

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%Open Patient##\_TestResults.dat

filename = sprintf('Patient%2d\_TestResults.dat',patientid);

if ~isempty(strfind(filename,' '))

filename = strrep(filename,' ','0');

end

fid = fopen(filename,'w');

if fid == -1

fprintf('File Open Failed\n')

else

%Write patient information

fprintf(fid,'Name: %s\n',PatientInfo(patientid).Name);

fprintf(fid,'Patient ID: %2d\n\n',patientid);

fprintf(fid,'Age | Sex | DOB\n');

fprintf(fid,' %s | %c | %s/%s/%s\n\n',...

PatientInfo(patientid).Age,PatientInfo(patientid).Sex, ...

PatientInfo(patientid).DOB.Month, ...

PatientInfo(patientid).DOB.Day, ...

PatientInfo(patientid).DOB.Year);

%Write patient history

if PatientInfo(patientid).History == 'Y'

fprintf(fid,'Family History: Y\n');

else

fprintf(fid,'Family History: N/A\n\n');

end

%Write test results

if ~isempty(mutation)

fprintf(fid,'Test Results: Positive\n');

fprintf(fid,'Mutation Location: %s\n\n',mutation);

else

fprintf(fid,'Test Results: Negative\n\n');

end

%Write protein strand

count = 1;

for i = 1:(length(patientpseq)/20)

fprintf(fid,'%2d - %s %s\n',count,...

patientpseq(count:count + 10), ...

patientpseq(count + 10:count + 20));

count = count + 20;

end

end

%close Patient##\_TestResults.dat

close = fclose('all');

if close == -1

fprintf('File Close Failed\n')

end

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

%Prompt User for Another Analysis

%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

response = input('Would you like to run analysis on another patient … (Y/N)? ','s');

if response == 'Y' || response == 'y'

run = run + 1;

elseif response == 'N' || response == 'n'

run = 0;

else

response = input('Error: Would you like to run analysis on another … patient (Y/N)?','s');

end

end

DNAread.m:

function [data] = DNAread

%This function reads in the data from aminotable.dat

%Output is a character matrix

%open aminotable.dat

fid = fopen('aminotable.dat');

if fid == -1

fprintf('File Open Failed\n')

else

%read data from file

dataarray = textscan(fid,'#%c#%c#%c-%c');

datamat = zeros(64,4); %preallocate

for i = 1:4

datamat(:,i) = dataarray{i};

end

data = char(datamat);

end

%close aminotable.dat

close = fclose(fid);

if close == -1

fprintf('File Close Failed\n')

end

Transcription.m:

function [rnastring] = Transcription(cdna,primer)

%This function performs transcription given a control DNA string

%and a primer string

%create template strand from coding strand

tdna = zeros(1,length(cdna));

avec = strfind(cdna,'A');

tvec = strfind(cdna,'T');

cvec = strfind(cdna,'C');

gvec = strfind(cdna,'G');

tdna(avec) = 'U';

tdna(tvec) = 'A';

tdna(cvec) = 'G';

tdna(gvec) = 'C';

tdna = fliplr(tdna);

%find starting index of primer

start = strfind(tdna,primer);

%create RNA strand

rnastring = tdna(start:end);

end

Translation.m:

function [pseq,varargout] = Translation(mrna,rna2amino,varargin)

%This function performs translation

%varargin - control protein sequence

%varargout - mutation string (A#B)

%convert mRNA to protein sequence

count = 1;

mrna = char(mrna);

for i = 1:3:(length(mrna)-2)

pseq(count) = rna2amino.(mrna(i)).(mrna(i+1)).(mrna(i+2));

count = count + 1;

end

stop = strfind(pseq,'Z');

pseq = pseq(1:stop(1));

if nargin == 3

%Find mutation

controlpseq = varargin{1};

mutation = find(pseq ~= controlpseq);

if ~isempty(mutation)

A = controlpseq(mutation);

B = pseq(mutation);

varargout{1} = [A num2str(mutation) B];

else

varargout{1} = [];

end

end

end

Patient01\_TestResults.dat

Name: Bertha Gyant

Patient ID: 1

Age | Sex | DOB

32 | F | 02/29/80

Family History: Y

Test Results: Positive

Mutation Location: E160G

1 - MLPGLALLLL AAWTARALEV

21 - PTDGNAGLLA EPQIAMFCGR

41 - LNMHMNVQNG KWDSDPSGTK

61 - TCIDTKEGIL QYCQEVYPEL

81 - QITNVVEANQ PVTIQNWCKR

101 - GRKQCKTHPH FVIPYRCLVG

121 - EFVSDALLVP DKCKFLHQER

141 - MDVCETHLHW HTVAKETCSG

161 - KSTNLHDYGM LLPCGIDKFR

181 - GVEFVCCPLA EESDNVDSAD

201 - AEEDDSDVWW GGADTDYADG

221 - SEDKVVEVAE EEEVAEVEEE

241 - EADDDEDDED GDEVEEEAEE

261 - PYEEATERTT SIATTTTTTT

281 - ESVEEVVREV CSEQAETGPC

301 - RAMISRWYFD VTEGKCAPFF

321 - YGGCGGNRNN FDTEEYCMAV

341 - CGSAMSQSLL KTTQEPLARD

361 - PVKLPTTAAS TPDAVDKYLE

381 - TPGDENEHAH FQKAKERLEA

401 - KHRERMSQVM REWEEAERQA

421 - KNLPKADKKA VIQHFQEKVE

441 - SLEQEAANER QQLVETHMAR

461 - VEAMLNDRRR LALENYITAL

481 - QAVPPRPRHV FNMLKKYVRA

501 - EQKDRQHTLK HFEHVRMVDP

521 - KKAAQIRSQV MTHLRVIYER

541 - MNQSLSLLYN VPAVAEEIQD

561 - EVDELLQKEQ NYSDDVLANM

581 - ISEPRISYGN DALMPSLTET

601 - KTTVELLPVN GEFSLDDLQP

621 - WHSFGADSVP ANTENEVEPV

641 - DARPAADRGL TTRPGSGLTN

661 - IKTEEISEVK MDAEFRHDSG

681 - YEVHHQKLVF FAEDVGSNKG

701 - AIIGLMVGGV VIATVIVITL

721 - VMLKKKQYTS IHHGVVEVDA

741 - AVTPEERHLS KMQQNGYENP

761 - TYKFFEQMQN Z

Patient02\_TestResults.dat

Name: Marvin Eriksen

Patient ID: 2

Age | Sex | DOB

35 | M | 05/14/1980

Family History: N/A

Test Results: Positive

Mutation Location: E693G

1 - MLPGLALLLL AAWTARALEV

21 - PTDGNAGLLA EPQIAMFCGR

41 - LNMHMNVQNG KWDSDPSGTK

61 - TCIDTKEGIL QYCQEVYPEL

81 - QITNVVEANQ PVTIQNWCKR

101 - GRKQCKTHPH FVIPYRCLVG

121 - EFVSDALLVP DKCKFLHQER

141 - MDVCETHLHW HTVAKETCSE

161 - KSTNLHDYGM LLPCGIDKFR

181 - GVEFVCCPLA EESDNVDSAD

201 - AEEDDSDVWW GGADTDYADG

221 - SEDKVVEVAE EEEVAEVEEE

241 - EADDDEDDED GDEVEEEAEE

261 - PYEEATERTT SIATTTTTTT

281 - ESVEEVVREV CSEQAETGPC

301 - RAMISRWYFD VTEGKCAPFF

321 - YGGCGGNRNN FDTEEYCMAV

341 - CGSAMSQSLL KTTQEPLARD

361 - PVKLPTTAAS TPDAVDKYLE

381 - TPGDENEHAH FQKAKERLEA

401 - KHRERMSQVM REWEEAERQA

421 - KNLPKADKKA VIQHFQEKVE

441 - SLEQEAANER QQLVETHMAR

461 - VEAMLNDRRR LALENYITAL

481 - QAVPPRPRHV FNMLKKYVRA

501 - EQKDRQHTLK HFEHVRMVDP

521 - KKAAQIRSQV MTHLRVIYER

541 - MNQSLSLLYN VPAVAEEIQD

561 - EVDELLQKEQ NYSDDVLANM

581 - ISEPRISYGN DALMPSLTET

601 - KTTVELLPVN GEFSLDDLQP

621 - WHSFGADSVP ANTENEVEPV

641 - DARPAADRGL TTRPGSGLTN

661 - IKTEEISEVK MDAEFRHDSG

681 - YEVHHQKLVF FAGDVGSNKG

701 - AIIGLMVGGV VIATVIVITL

721 - VMLKKKQYTS IHHGVVEVDA

741 - AVTPEERHLS KMQQNGYENP

761 - TYKFFEQMQN Z

Patient03\_TestResults.dat

Name: Jamie Triptophan

Patient ID: 3

Age | Sex | DOB

37 | F | 01/01/1975

Family History: N/A

Test Results: Negative

1 - MLPGLALLLL AAWTARALEV

21 - PTDGNAGLLA EPQIAMFCGR

41 - LNMHMNVQNG KWDSDPSGTK

61 - TCIDTKEGIL QYCQEVYPEL

81 - QITNVVEANQ PVTIQNWCKR

101 - GRKQCKTHPH FVIPYRCLVG

121 - EFVSDALLVP DKCKFLHQER

141 - MDVCETHLHW HTVAKETCSE

161 - KSTNLHDYGM LLPCGIDKFR

181 - GVEFVCCPLA EESDNVDSAD

201 - AEEDDSDVWW GGADTDYADG

221 - SEDKVVEVAE EEEVAEVEEE

241 - EADDDEDDED GDEVEEEAEE

261 - PYEEATERTT SIATTTTTTT

281 - ESVEEVVREV CSEQAETGPC

301 - RAMISRWYFD VTEGKCAPFF

321 - YGGCGGNRNN FDTEEYCMAV

341 - CGSAMSQSLL KTTQEPLARD

361 - PVKLPTTAAS TPDAVDKYLE

381 - TPGDENEHAH FQKAKERLEA

401 - KHRERMSQVM REWEEAERQA

421 - KNLPKADKKA VIQHFQEKVE

441 - SLEQEAANER QQLVETHMAR

461 - VEAMLNDRRR LALENYITAL

481 - QAVPPRPRHV FNMLKKYVRA

501 - EQKDRQHTLK HFEHVRMVDP

521 - KKAAQIRSQV MTHLRVIYER

541 - MNQSLSLLYN VPAVAEEIQD

561 - EVDELLQKEQ NYSDDVLANM

581 - ISEPRISYGN DALMPSLTET

601 - KTTVELLPVN GEFSLDDLQP

621 - WHSFGADSVP ANTENEVEPV

641 - DARPAADRGL TTRPGSGLTN

661 - IKTEEISEVK MDAEFRHDSG

681 - YEVHHQKLVF FAEDVGSNKG

701 - AIIGLMVGGV VIATVIVITL

721 - VMLKKKQYTS IHHGVVEVDA

741 - AVTPEERHLS KMQQNGYENP

761 - TYKFFEQMQN Z

Patient04\_TestResults.dat

Name: Agatha Morgast

Patient ID: 4

Age | Sex | DOB

39 | F | 04/23/1973

Family History: N/A

Test Results: Negative

1 - MLPGLALLLL AAWTARALEV

21 - PTDGNAGLLA EPQIAMFCGR

41 - LNMHMNVQNG KWDSDPSGTK

61 - TCIDTKEGIL QYCQEVYPEL

81 - QITNVVEANQ PVTIQNWCKR

101 - GRKQCKTHPH FVIPYRCLVG

121 - EFVSDALLVP DKCKFLHQER

141 - MDVCETHLHW HTVAKETCSE

161 - KSTNLHDYGM LLPCGIDKFR

181 - GVEFVCCPLA EESDNVDSAD

201 - AEEDDSDVWW GGADTDYADG

221 - SEDKVVEVAE EEEVAEVEEE

241 - EADDDEDDED GDEVEEEAEE

261 - PYEEATERTT SIATTTTTTT

281 - ESVEEVVREV CSEQAETGPC

301 - RAMISRWYFD VTEGKCAPFF

321 - YGGCGGNRNN FDTEEYCMAV

341 - CGSAMSQSLL KTTQEPLARD

361 - PVKLPTTAAS TPDAVDKYLE

381 - TPGDENEHAH FQKAKERLEA

401 - KHRERMSQVM REWEEAERQA

421 - KNLPKADKKA VIQHFQEKVE

441 - SLEQEAANER QQLVETHMAR

461 - VEAMLNDRRR LALENYITAL

481 - QAVPPRPRHV FNMLKKYVRA

501 - EQKDRQHTLK HFEHVRMVDP

521 - KKAAQIRSQV MTHLRVIYER

541 - MNQSLSLLYN VPAVAEEIQD

561 - EVDELLQKEQ NYSDDVLANM

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661 - IKTEEISEVK MDAEFRHDSG

681 - YEVHHQKLVF FAEDVGSNKG

701 - AIIGLMVGGV VIATVIVITL

721 - VMLKKKQYTS IHHGVVEVDA

741 - AVTPEERHLS KMQQNGYENP

761 - TYKFFEQMQN Z

Patient05\_TestResults.dat

Name: Joe Fourier

Patient ID: 5

Age | Sex | DOB

45 | M | 09/17/1967

Family History: N/A

Test Results: Positive

Mutation Location: E665D

1 - MLPGLALLLL AAWTARALEV

21 - PTDGNAGLLA EPQIAMFCGR

41 - LNMHMNVQNG KWDSDPSGTK

61 - TCIDTKEGIL QYCQEVYPEL

81 - QITNVVEANQ PVTIQNWCKR

101 - GRKQCKTHPH FVIPYRCLVG

121 - EFVSDALLVP DKCKFLHQER

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641 - DARPAADRGL TTRPGSGLTN

661 - IKTEDISEVK MDAEFRHDSG

681 - YEVHHQKLVF FAEDVGSNKG

701 - AIIGLMVGGV VIATVIVITL

721 - VMLKKKQYTS IHHGVVEVDA

741 - AVTPEERHLS KMQQNGYENP

761 - TYKFFEQMQN Z

Patient06\_TestResults.dat

Name: Ingrid Mingeroedt

Patient ID: 6

Age | Sex | DOB

31 | F | 03/27/1981

Family History: Y

Test Results: Positive

Mutation Location: E693G

1 - MLPGLALLLL AAWTARALEV

21 - PTDGNAGLLA EPQIAMFCGR

41 - LNMHMNVQNG KWDSDPSGTK

61 - TCIDTKEGIL QYCQEVYPEL

81 - QITNVVEANQ PVTIQNWCKR

101 - GRKQCKTHPH FVIPYRCLVG

121 - EFVSDALLVP DKCKFLHQER

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361 - PVKLPTTAAS TPDAVDKYLE

381 - TPGDENEHAH FQKAKERLEA

401 - KHRERMSQVM REWEEAERQA

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461 - VEAMLNDRRR LALENYITAL

481 - QAVPPRPRHV FNMLKKYVRA

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561 - EVDELLQKEQ NYSDDVLANM

581 - ISEPRISYGN DALMPSLTET

601 - KTTVELLPVN GEFSLDDLQP

621 - WHSFGADSVP ANTENEVEPV

641 - DARPAADRGL TTRPGSGLTN

661 - IKTEEISEVK MDAEFRHDSG

681 - YEVHHQKLVF FAGDVGSNKG

701 - AIIGLMVGGV VIATVIVITL

721 - VMLKKKQYTS IHHGVVEVDA

741 - AVTPEERHLS KMQQNGYENP

761 - TYKFFEQMQN Z

Patient07\_TestResults.dat

Name: Michelangelo Cleft

Patient ID: 7

Age | Sex | DOB

30 | M | 06/28/1982

Family History: N/A

Test Results: Negative

1 - MLPGLALLLL AAWTARALEV

21 - PTDGNAGLLA EPQIAMFCGR

41 - LNMHMNVQNG KWDSDPSGTK

61 - TCIDTKEGIL QYCQEVYPEL

81 - QITNVVEANQ PVTIQNWCKR

101 - GRKQCKTHPH FVIPYRCLVG

121 - EFVSDALLVP DKCKFLHQER

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341 - CGSAMSQSLL KTTQEPLARD

361 - PVKLPTTAAS TPDAVDKYLE

381 - TPGDENEHAH FQKAKERLEA

401 - KHRERMSQVM REWEEAERQA

421 - KNLPKADKKA VIQHFQEKVE

441 - SLEQEAANER QQLVETHMAR

461 - VEAMLNDRRR LALENYITAL

481 - QAVPPRPRHV FNMLKKYVRA

501 - EQKDRQHTLK HFEHVRMVDP

521 - KKAAQIRSQV MTHLRVIYER

541 - MNQSLSLLYN VPAVAEEIQD

561 - EVDELLQKEQ NYSDDVLANM

581 - ISEPRISYGN DALMPSLTET

601 - KTTVELLPVN GEFSLDDLQP

621 - WHSFGADSVP ANTENEVEPV

641 - DARPAADRGL TTRPGSGLTN

661 - IKTEEISEVK MDAEFRHDSG

681 - YEVHHQKLVF FAEDVGSNKG

701 - AIIGLMVGGV VIATVIVITL

721 - VMLKKKQYTS IHHGVVEVDA

741 - AVTPEERHLS KMQQNGYENP

761 - TYKFFEQMQN Z

Patient08\_TestResults.dat

Name: Daniella Lotera

Patient ID: 8

Age | Sex | DOB

44 | F | 10/09/1968

Family History: Y

Test Results: Negative

1 - MLPGLALLLL AAWTARALEV

21 - PTDGNAGLLA EPQIAMFCGR

41 - LNMHMNVQNG KWDSDPSGTK

61 - TCIDTKEGIL QYCQEVYPEL

81 - QITNVVEANQ PVTIQNWCKR

101 - GRKQCKTHPH FVIPYRCLVG

121 - EFVSDALLVP DKCKFLHQER

141 - MDVCETHLHW HTVAKETCSE

161 - KSTNLHDYGM LLPCGIDKFR

181 - GVEFVCCPLA EESDNVDSAD

201 - AEEDDSDVWW GGADTDYADG

221 - SEDKVVEVAE EEEVAEVEEE

241 - EADDDEDDED GDEVEEEAEE

261 - PYEEATERTT SIATTTTTTT

281 - ESVEEVVREV CSEQAETGPC

301 - RAMISRWYFD VTEGKCAPFF

321 - YGGCGGNRNN FDTEEYCMAV

341 - CGSAMSQSLL KTTQEPLARD

361 - PVKLPTTAAS TPDAVDKYLE

381 - TPGDENEHAH FQKAKERLEA

401 - KHRERMSQVM REWEEAERQA

421 - KNLPKADKKA VIQHFQEKVE

441 - SLEQEAANER QQLVETHMAR

461 - VEAMLNDRRR LALENYITAL

481 - QAVPPRPRHV FNMLKKYVRA

501 - EQKDRQHTLK HFEHVRMVDP

521 - KKAAQIRSQV MTHLRVIYER

541 - MNQSLSLLYN VPAVAEEIQD

561 - EVDELLQKEQ NYSDDVLANM

581 - ISEPRISYGN DALMPSLTET

601 - KTTVELLPVN GEFSLDDLQP

621 - WHSFGADSVP ANTENEVEPV

641 - DARPAADRGL TTRPGSGLTN

661 - IKTEEISEVK MDAEFRHDSG

681 - YEVHHQKLVF FAEDVGSNKG

701 - AIIGLMVGGV VIATVIVITL

721 - VMLKKKQYTS IHHGVVEVDA

741 - AVTPEERHLS KMQQNGYENP

761 - TYKFFEQMQN Z

Patient09\_TestResults.dat

Name: Larry Trotter

Patient ID: 9

Age | Sex | DOB

48 | M | 07/04/1964

Family History: N/A

Test Results: Positive

Mutation Location: T719S

1 - MLPGLALLLL AAWTARALEV

21 - PTDGNAGLLA EPQIAMFCGR

41 - LNMHMNVQNG KWDSDPSGTK

61 - TCIDTKEGIL QYCQEVYPEL

81 - QITNVVEANQ PVTIQNWCKR

101 - GRKQCKTHPH FVIPYRCLVG

121 - EFVSDALLVP DKCKFLHQER

141 - MDVCETHLHW HTVAKETCSE

161 - KSTNLHDYGM LLPCGIDKFR

181 - GVEFVCCPLA EESDNVDSAD

201 - AEEDDSDVWW GGADTDYADG

221 - SEDKVVEVAE EEEVAEVEEE

241 - EADDDEDDED GDEVEEEAEE

261 - PYEEATERTT SIATTTTTTT

281 - ESVEEVVREV CSEQAETGPC

301 - RAMISRWYFD VTEGKCAPFF

321 - YGGCGGNRNN FDTEEYCMAV

341 - CGSAMSQSLL KTTQEPLARD

361 - PVKLPTTAAS TPDAVDKYLE

381 - TPGDENEHAH FQKAKERLEA

401 - KHRERMSQVM REWEEAERQA

421 - KNLPKADKKA VIQHFQEKVE

441 - SLEQEAANER QQLVETHMAR

461 - VEAMLNDRRR LALENYITAL

481 - QAVPPRPRHV FNMLKKYVRA

501 - EQKDRQHTLK HFEHVRMVDP

521 - KKAAQIRSQV MTHLRVIYER

541 - MNQSLSLLYN VPAVAEEIQD

561 - EVDELLQKEQ NYSDDVLANM

581 - ISEPRISYGN DALMPSLTET

601 - KTTVELLPVN GEFSLDDLQP

621 - WHSFGADSVP ANTENEVEPV

641 - DARPAADRGL TTRPGSGLTN

661 - IKTEEISEVK MDAEFRHDSG

681 - YEVHHQKLVF FAEDVGSNKG

701 - AIIGLMVGGV VIATVIVISL

721 - VMLKKKQYTS IHHGVVEVDA

741 - AVTPEERHLS KMQQNGYENP

761 - TYKFFEQMQN Z

Patient10\_TestResults.dat

Name: Andrew Liu

Patient ID: 10

Age | Sex | DOB

38 | M | 02/23/1974

Family History: N/A

Test Results: Negative

1 - MLPGLALLLL AAWTARALEV

21 - PTDGNAGLLA EPQIAMFCGR

41 - LNMHMNVQNG KWDSDPSGTK

61 - TCIDTKEGIL QYCQEVYPEL

81 - QITNVVEANQ PVTIQNWCKR

101 - GRKQCKTHPH FVIPYRCLVG

121 - EFVSDALLVP DKCKFLHQER

141 - MDVCETHLHW HTVAKETCSE

161 - KSTNLHDYGM LLPCGIDKFR

181 - GVEFVCCPLA EESDNVDSAD

201 - AEEDDSDVWW GGADTDYADG

221 - SEDKVVEVAE EEEVAEVEEE

241 - EADDDEDDED GDEVEEEAEE

261 - PYEEATERTT SIATTTTTTT

281 - ESVEEVVREV CSEQAETGPC

301 - RAMISRWYFD VTEGKCAPFF

321 - YGGCGGNRNN FDTEEYCMAV

341 - CGSAMSQSLL KTTQEPLARD

361 - PVKLPTTAAS TPDAVDKYLE

381 - TPGDENEHAH FQKAKERLEA

401 - KHRERMSQVM REWEEAERQA

421 - KNLPKADKKA VIQHFQEKVE

441 - SLEQEAANER QQLVETHMAR

461 - VEAMLNDRRR LALENYITAL

481 - QAVPPRPRHV FNMLKKYVRA

501 - EQKDRQHTLK HFEHVRMVDP

521 - KKAAQIRSQV MTHLRVIYER

541 - MNQSLSLLYN VPAVAEEIQD

561 - EVDELLQKEQ NYSDDVLANM

581 - ISEPRISYGN DALMPSLTET

601 - KTTVELLPVN GEFSLDDLQP

621 - WHSFGADSVP ANTENEVEPV

641 - DARPAADRGL TTRPGSGLTN

661 - IKTEEISEVK MDAEFRHDSG

681 - YEVHHQKLVF FAEDVGSNKG

701 - AIIGLMVGGV VIATVIVITL

721 - VMLKKKQYTS IHHGVVEVDA

741 - AVTPEERHLS KMQQNGYENP

761 - TYKFFEQMQN Z