

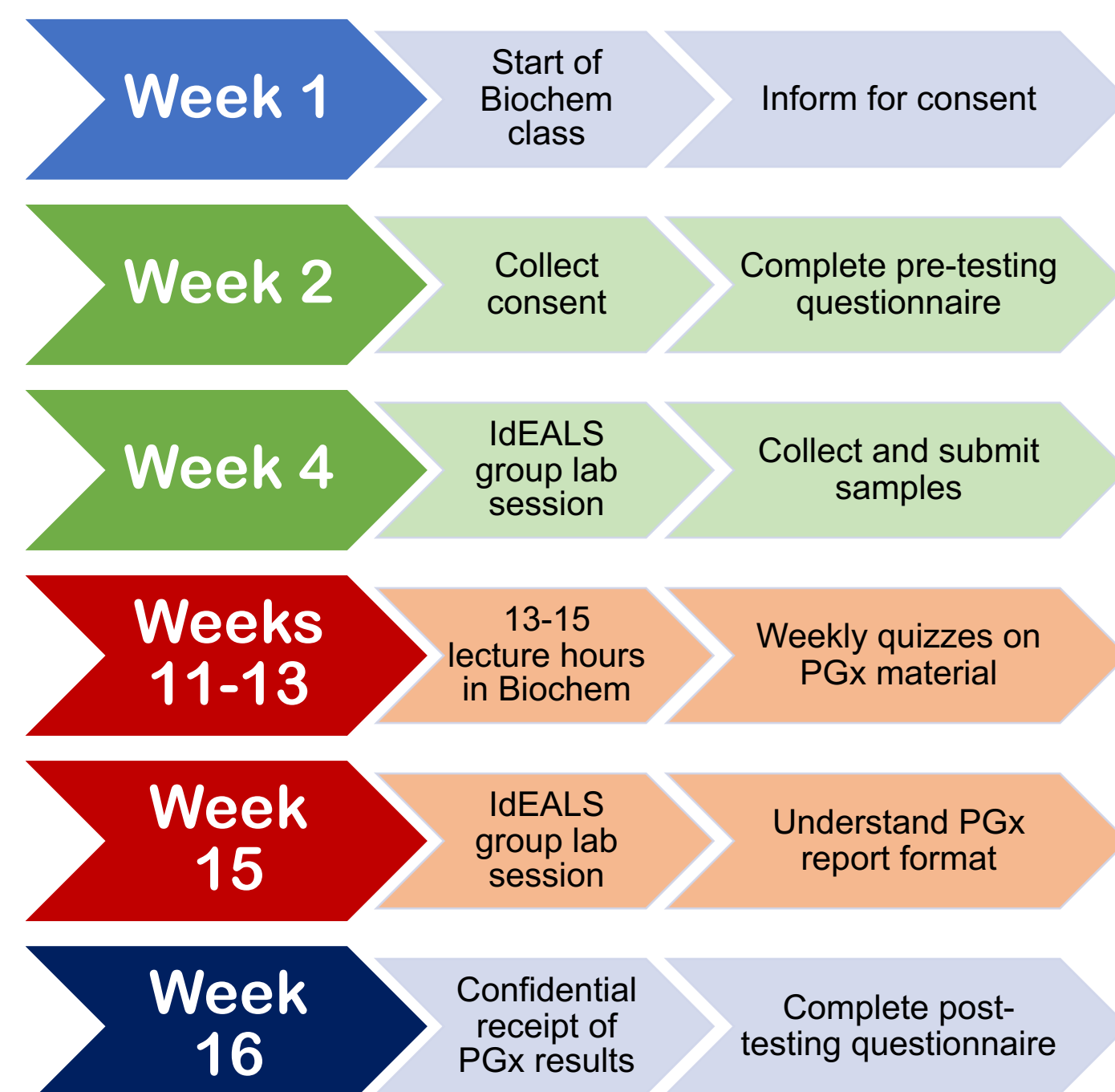
PRESENTER: **Lillian V. Rolfe**

Bill Gatton College of
Pharmacy, ETSU

INTRODUCTION

We have established a research study to educate all incoming pharmacy students by offering PGx testing with the RightMed® test from OneOme (Minneapolis MN) free of charge.

METHODS



All procedures were approved by the East Tennessee State University/VA Campus IRB.

RESULTS



DISCUSSION

Our study providing free PGx testing, education and guided review of personal PGx results for incoming consenting first year pharmacy students provides the data to support feasibility and integration into every pharmacy curriculum.

Personal PGx testing for ALL first-year PharmD students promotes PGx learning through the ENTIRE curriculum.



Take a picture to download the poster or go to: <https://faculty.etsu.edu/hurleyd>

Guidance for implementing pharmacogenomics (PGx) testing in the first year pharmacy curriculum

LV Rolfe*, S Harirforoosh, V Palau, and DL Hurley

• Student APPE participant; Dept. Pharmaceutical Sciences, Bill Gatton College of Pharmacy

	F2018	F2019	F2020	Sum
Median Age (yrs)	21	22	22	22
Age range	19 - 31	20 - 39	19 - 45	19 - 45
Ethnicity	#	#	#	%
White or Caucasian (not Hispanic or Latino)	72	49	47	80.8
Asian	6	9	4	9.1
Black or African American	2	9	2	6.3
Hispanic or Latino	2	4	1	3.4
American Indian or Alaska Native	1	0	0	0.5
Native Hawaiian or Pacific Islander	0	0	0	0.0
Other: Egyptian	1	0	1	1.0
TOTAL	84	71	55	210

	F2018		F2019		F2020		Sum	
	#	%	#	%	No.	%	No.	%
Taking any medications?								
Yes	25	30.9	46	64.8	27	49.1	98	47.3
No	56	69.1	25	35.2	28	50.9	109	52.7
Medications ineffective?								
Yes	26	32.1	30	42.3	18	32.7	74	35.8
No	55	67.9	41	57.8	37	67.3	133	64.3
Medication side effects?								
Yes	54	66.7	38	53.5	32	58.2	124	59.9
No	27	33.3	33	46.5	23	41.9	83	40.1

PGx tests used were:

Fall 2018: DNA2Rx test for 18 genes; Dr. Tim Wiltshire, UNC Eshelman School of Pharmacy; and
Fall 2019 and 2020: RightMed® test for 27 genes; OneOme Co, Minneapolis, MN).

Tests were given FREE of charge to ALL consenting students.

Gene name	DNA 2 Rx (UNC)	RightMed®(OneOme)
CYP1A2	--	++
CYP2B6	++	++
CYP2C9	++	++
CYP2C19	++	++
CYP2C Cluster*	--	++
CYP2D6	++	++
CYP3A4	++	++
CYP3A5	++	++
CYP4F2	++	++
ABCB1	++	--
BCHE	++	--
COMT	--	++
DPYD	--	++
DRD2	++	++
Factor 2	--	++
Factor 5	--	++
GRIK4	--	++
G6PD	++	--
HLA-A	--	++
HLA-B	--	++
HTR2A	--	++
HTR2C	--	++
IFNL4	--	++
NAT2	++	--
NUDT15	++	++
OPRM1	--	++
RYR1	++	--
SLC6A4	--	++
SLCO1B1	++	++
TPMT	++	++
UGT1A1	++	++
VKORC1	++	++
Total genes	18	27

