



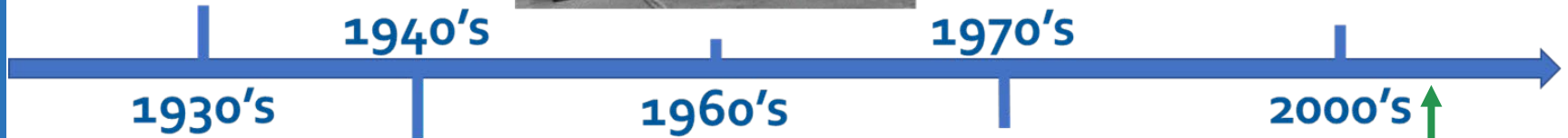
# PFAS Analysis and Accreditation at Vista Analytical / Enthalpy EDH



Jamie Fox

Sr. Laboratory Program Manager

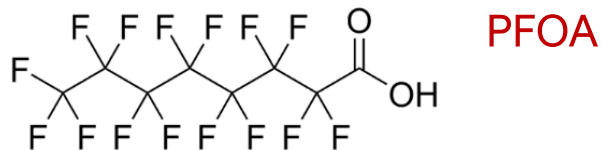
# How Did We Get Here?



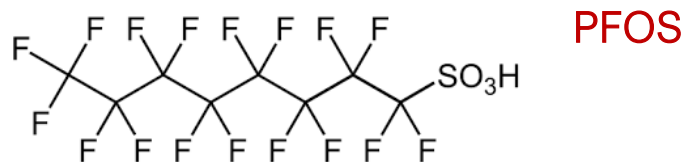
2007: Vista first analyzes PFOS in serum

# Diversity of PFAS Compound Classes

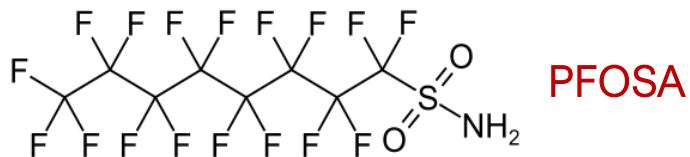
## Perfluoroalkylcarboxylic Acids (PFCAs)



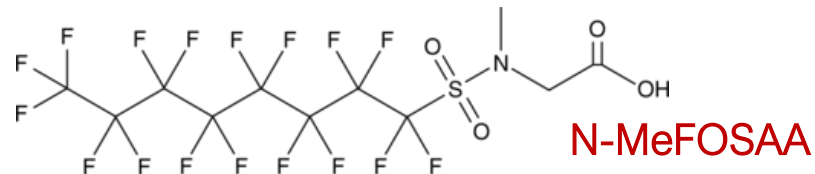
## Perfluoroalkylsulfonic Acids (PFSA)



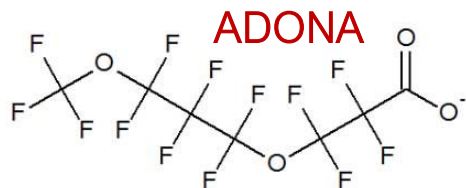
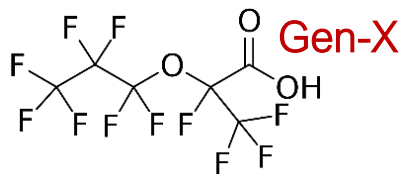
## Perfluoroalkylsulfonamides (PFASAs)



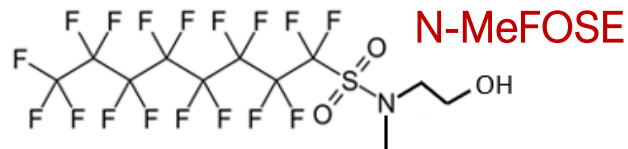
## Perfluoroalkylsulfonamidoacetic acid (PFASAAs)



## Per and Poly-fluoroether carboxylic acids (PFECA)



## Perfluoroalkylsulfonamidoethanol (PFASE)

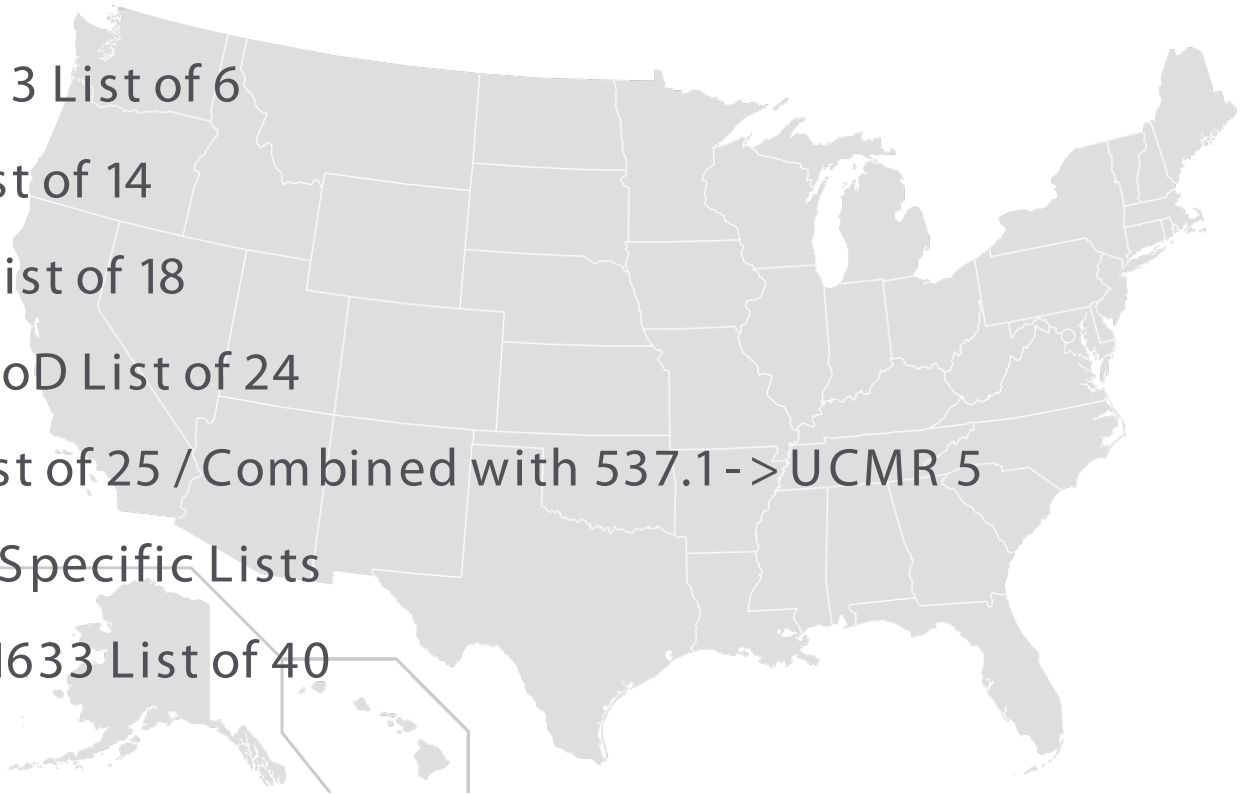


# What PFAS Method is Needed?

Method	Matrix	Analytes	Extn	Quantitation	~ RLs	Release Date
<b>EPA 537 or 537.1</b>	DW	14 / 18	SPE (SDVB)	Surr/Int. Std.	10-20 ng/L	2009 / 2017
<b>EPA 533</b>	DW	25	SPE	Isotope Dilution	2-10 ng/L	2019
<b>ASTM D7979</b>	NP Water	21	Direct Injection	Ext. Calibration	10-8000 ng/L	2017
<b>EPA 8327</b>	NP Water	24	Direct Injection	Ext. Calibration	10-50 ng/L	2019
<b>PFAS by Isotope Dilution</b>	All	24+	SPE	Isotope Dilution	2-3 ng/L 0.2-0.5 ng/g	--
<b>Draft EPA 1633</b>	Most	40	SPE	Isotope Dilution	1.5-15 ng/L 0.2 -2 ng/g	2021

# What List of PFAS is Needed?

- UCMR 3 List of 6
- 537 List of 14
- 537.1 List of 18
- EPA/DoD List of 24
- 533 List of 25 / Combined with 537.1 -> UCMR 5
- State-Specific Lists
- Draft 1633 List of 40



# Where Are We Headed?

## Uncertainty

- Convergence of method/analyte list requirements??
- Draft 1633 variability from method allowed modifications
- Automated SPE more common outside of drinking water
- Still many unknowns for complex matrices and longer analyte lists

## Certainty

- PFAS are not going away
- LC/MS manufacturers will continue to make lots of \$\$

# Questions?



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