

About Bayesian statistics and its value for industrial purposes Pharmaceutical examples

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Software ready-to-use	ebnəlıA 餐
E-noval validates your physico-chemical methods (HPLC, UPLC,)	
Seelva validates your ligand binding assays method such as ELISA, RIA,	Seelva
Transval focuses on the transfer of analytical methods from one lab to another	🕅 Transval
Stab.e.lity evaluates your product shelf-life and defines the release limits.	Stab-e-lity
Software as a Service (SaaS) – 21CFR part 7	11 / GAMP5
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Bayesian methods: General principles



















































































Со	Comparison Bayesian-Frequentist							
6. Ex	6. Example: ANOVA 1							
Frequentist analysis :								
	Estimate	Std. Error	t value	Pr(> t)				
μ	-2.3136	0.8655	-2.673	0.0155 *				
α	-1.6843	1.2240	-1.376	0.1857				
The	difference be	tween treatn	nent and p	blacebo (α) is	not significant.			
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Co	Comparison Bayesian-Frequentist						Arlenda
6. Example: ANOVA 1							
Baye	esian non	<u>-informati</u>	ve analysis	<u>.</u>			
	mean	sd	2.5%	25%	50%	75%	97.5%
mu	-2.3237971	0.92896268	-4.19010000	-2.9147500	-2.3365	-1.714000	-0.5021525
alpha	-1.6832251	1.33578129	-4.28912500	-2.5352500	-1.6655	-0.811775	0.8977400
ARLE	NDA © 20	14					













































	Spray-drying pro	cess				>	Arlenda
	Validation						
	 Experiment optimal con 	s hav ditior	ve been ro n, i.e.	epeated 3	3 times inde	pendently	y at
	Inlet Temp	eratur	e: 123.75°	°C			
	Spray Flow	Rate	: 1744 L/h	I			
	Feed Rate	Feed Rate: 4.69 ml/min					
	Batches	Yield (%)	Moisture content (%)	Inhalable fraction (%)	Compressibility index	Hausner ratio	
	1 2 3 Mean Standard deviation	88 89 88 88.7 0.61	<0.2 <0.2 <0.2 < 0.2 < 0.2 NA	63 62 59 61.18 1.82	11.6 12 11.5 11.76 0.22	1.13 1.14 1.13 1.13 0.01	-
Α	Jointly, 2 o	ut of t	he 3 runs	within spe	cification		















































A <u>Bayesian Design Space of</u> Dissolution Profile and Membrane Coating Parameters

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