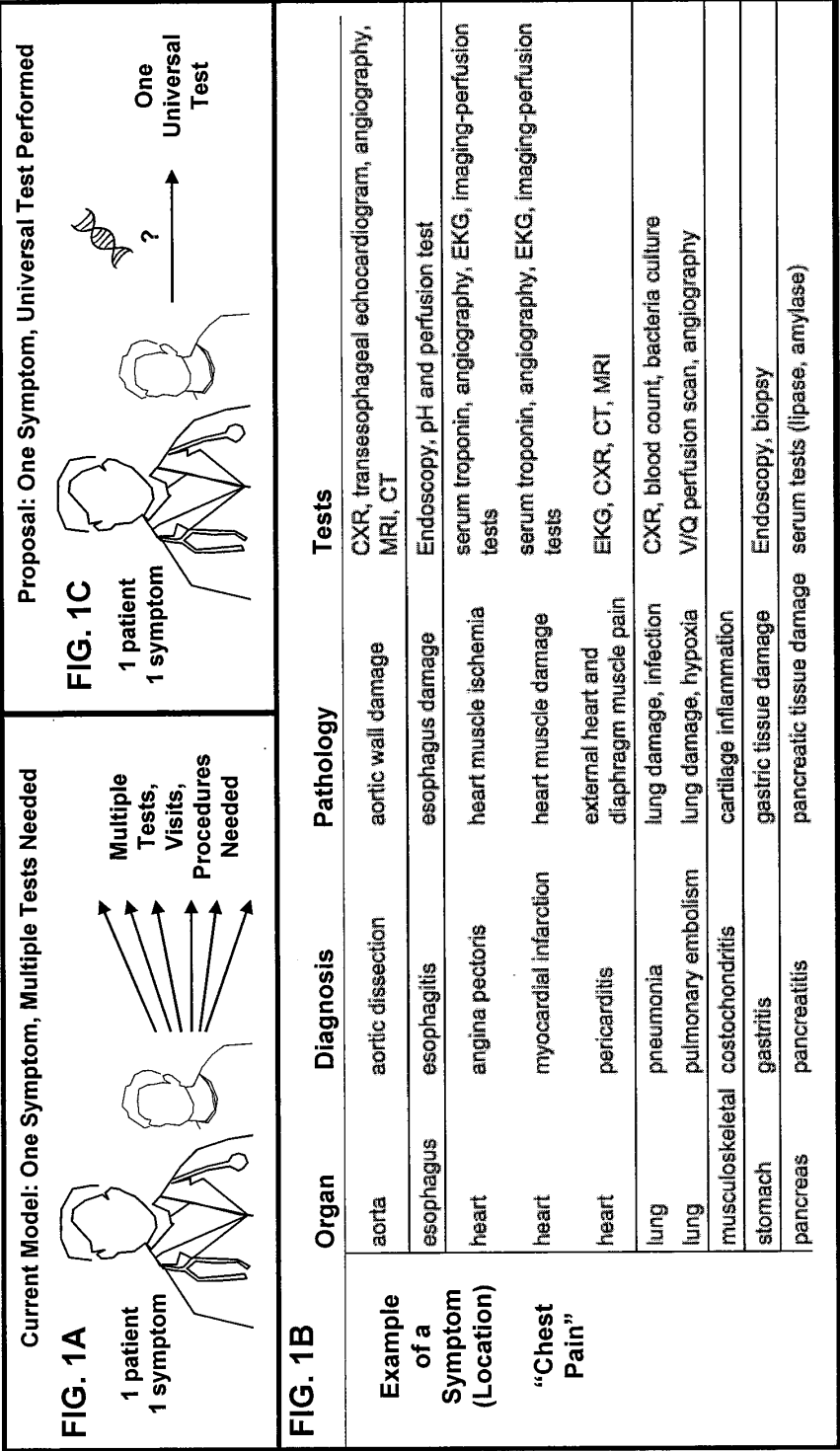
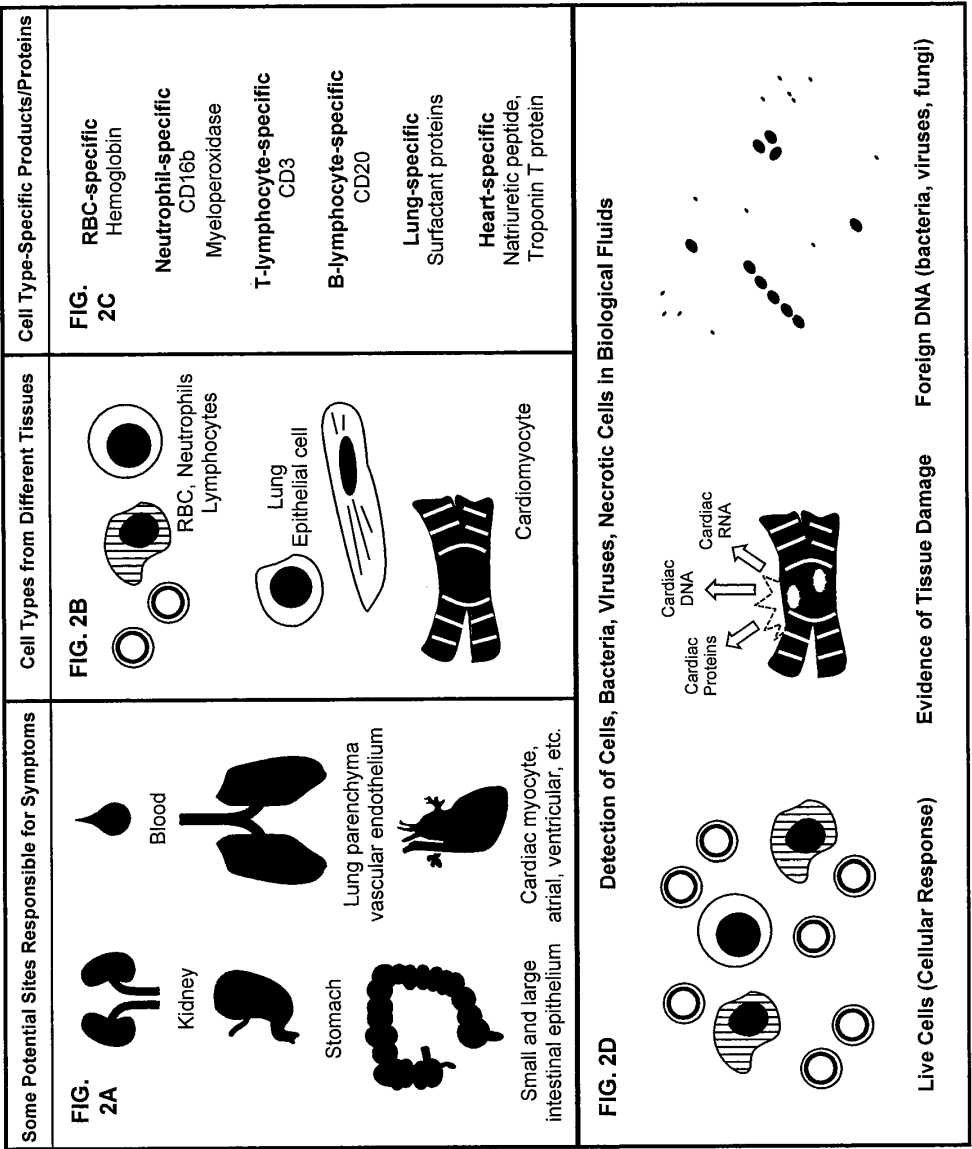






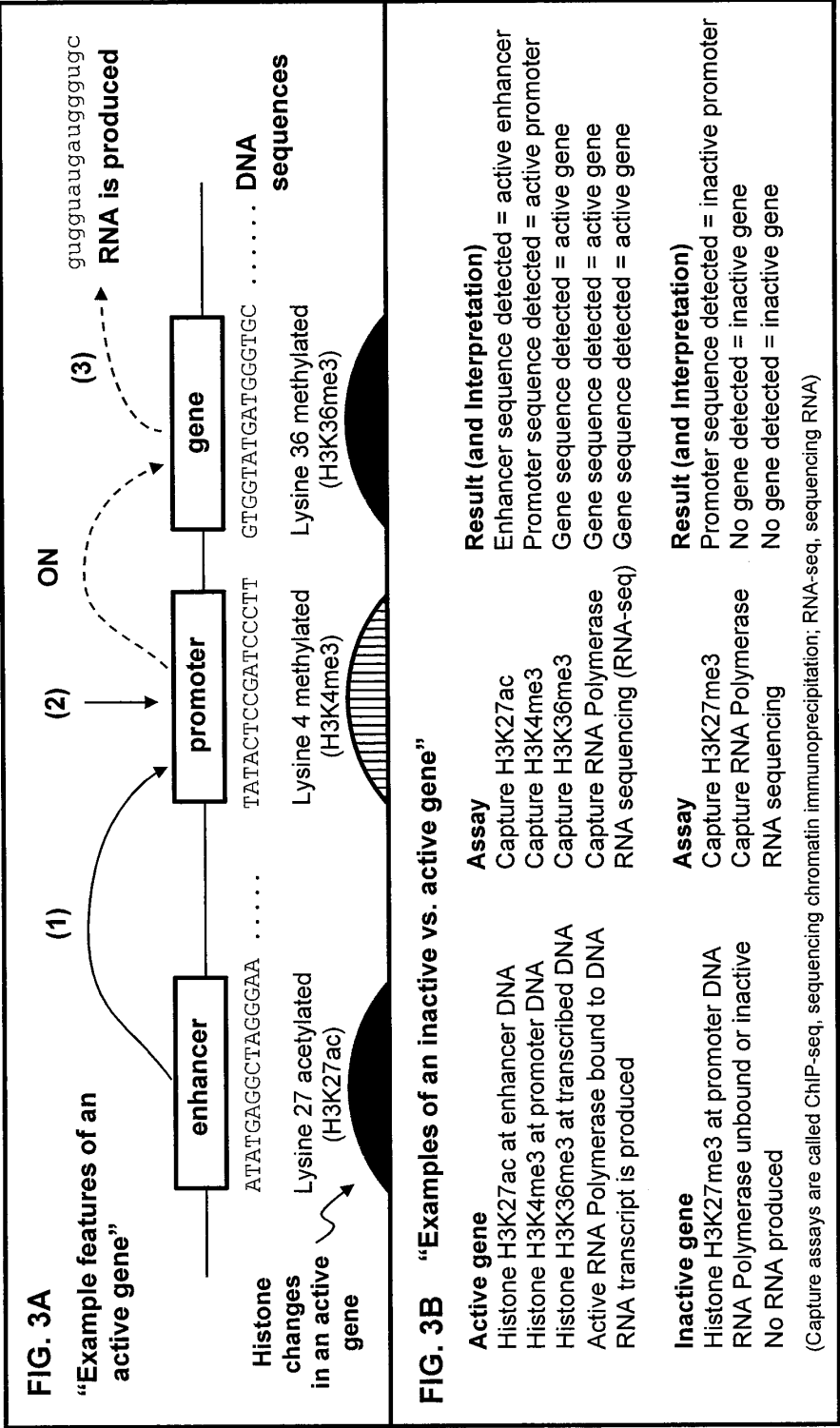


FIG. 4A Clinicians use tests to infer biological information (inferred values) about a condition

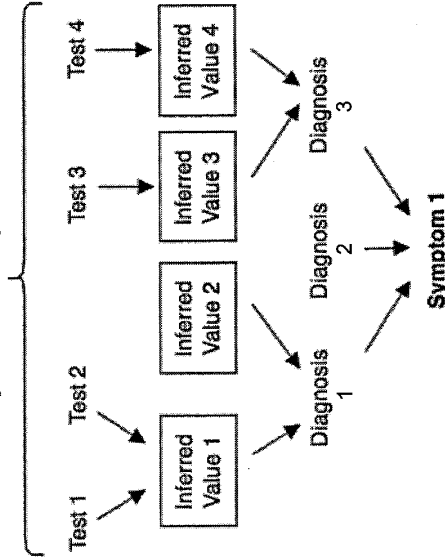


FIG. 4B Symptom, Inferred Values, Tests, Diagnoses can be electronically associated

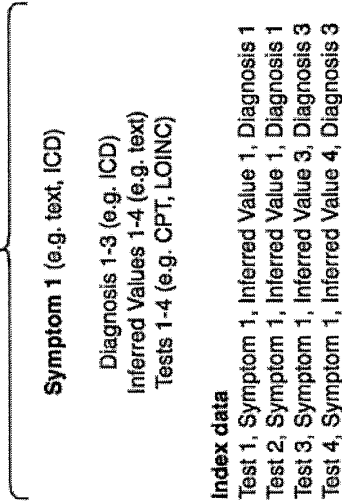
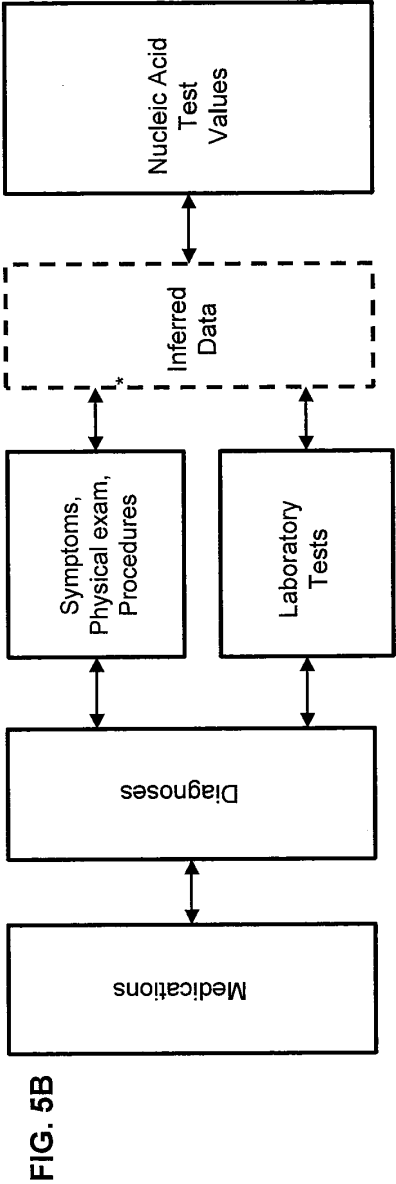
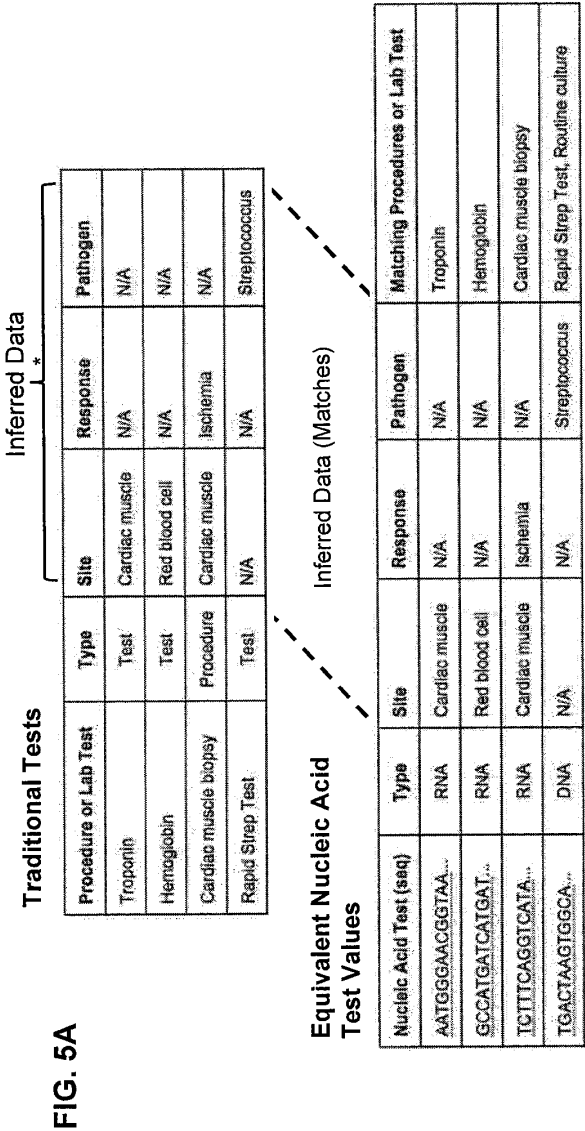


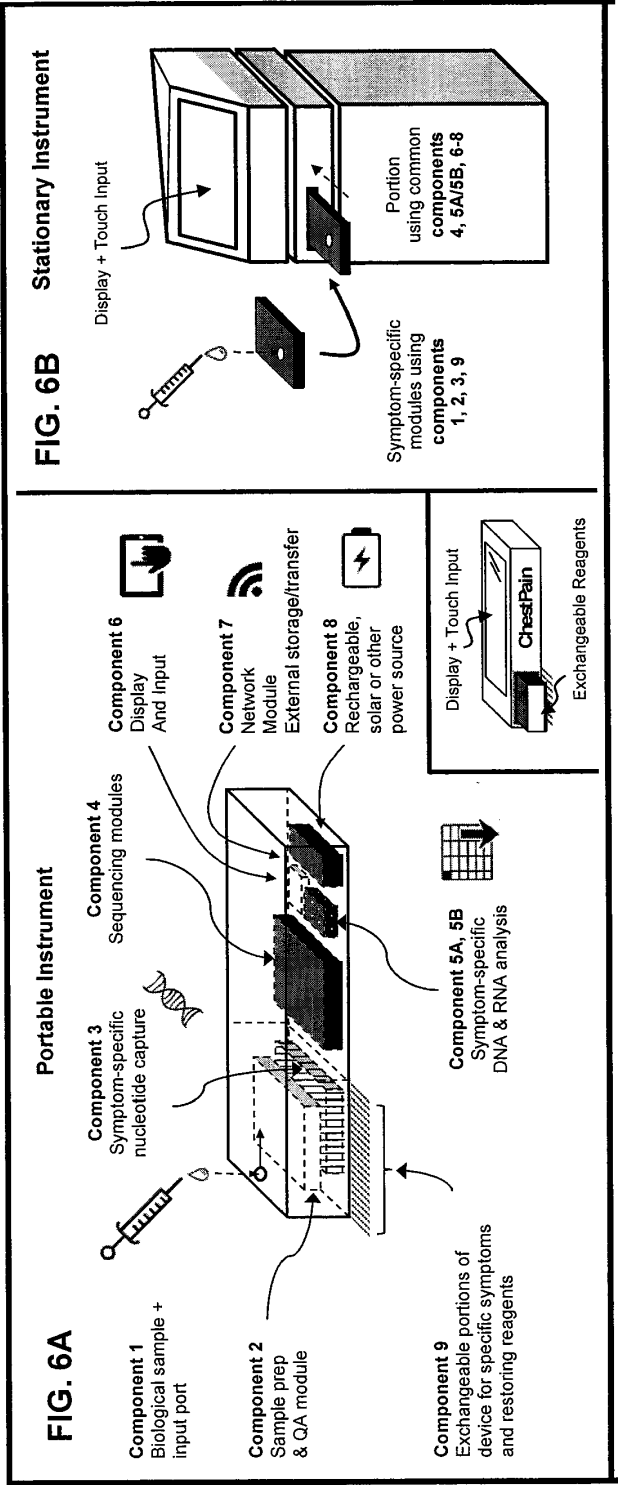
FIG. 4C

Examples and categories of Inferred Values used by clinicians

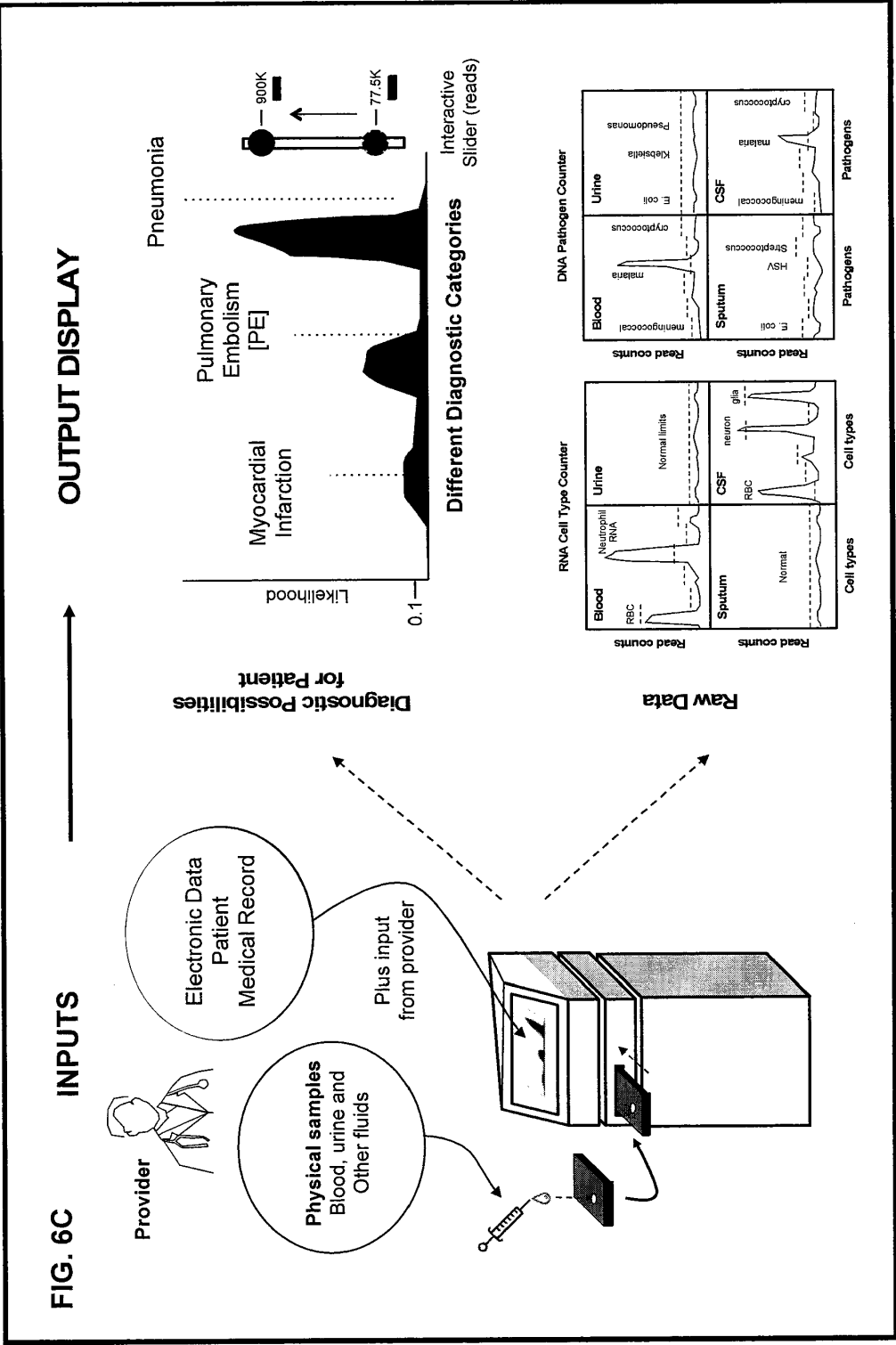
Category I: Anatomical Site Heart Lung Bronchus Liver Kidney Brain Aorta	Category II: Host and pathogen response Ischemia Acute inflammation (neutrophilic, TNF) T-cell response (Th1) T-cell response (Th2) T-cell response (Th17) Allergic response (eosinophils, IgE) Hyphael growth (Candida response)	Category III: Pathogen Staphylococcus aureus Streptococcus pneumoniae Neisseria meningitidis
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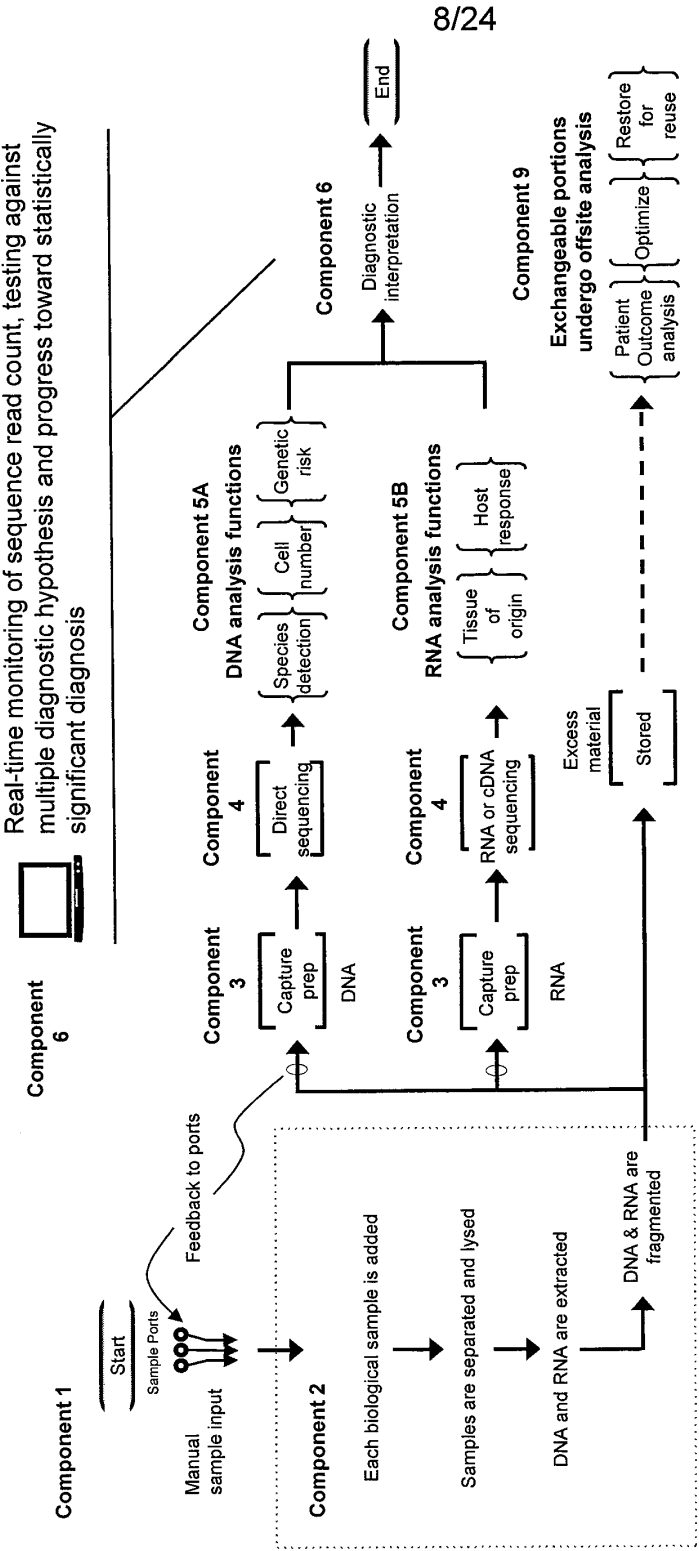


FIG. 7

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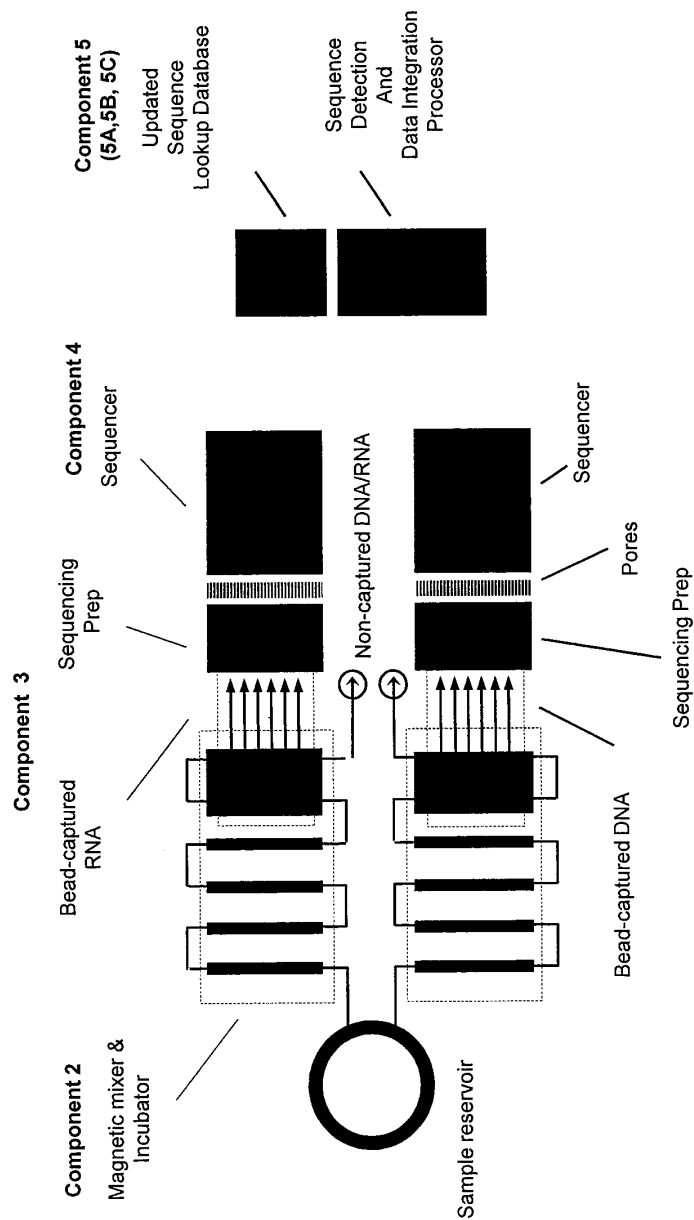


FIG. 8

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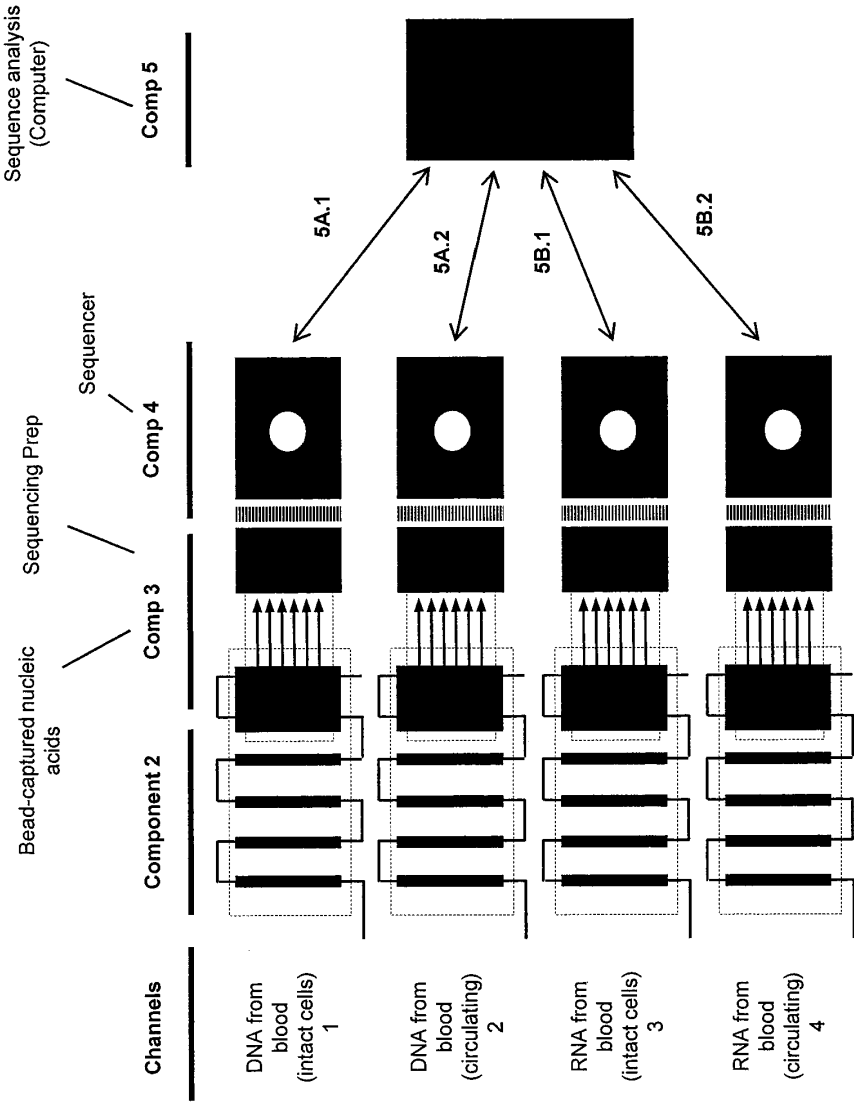
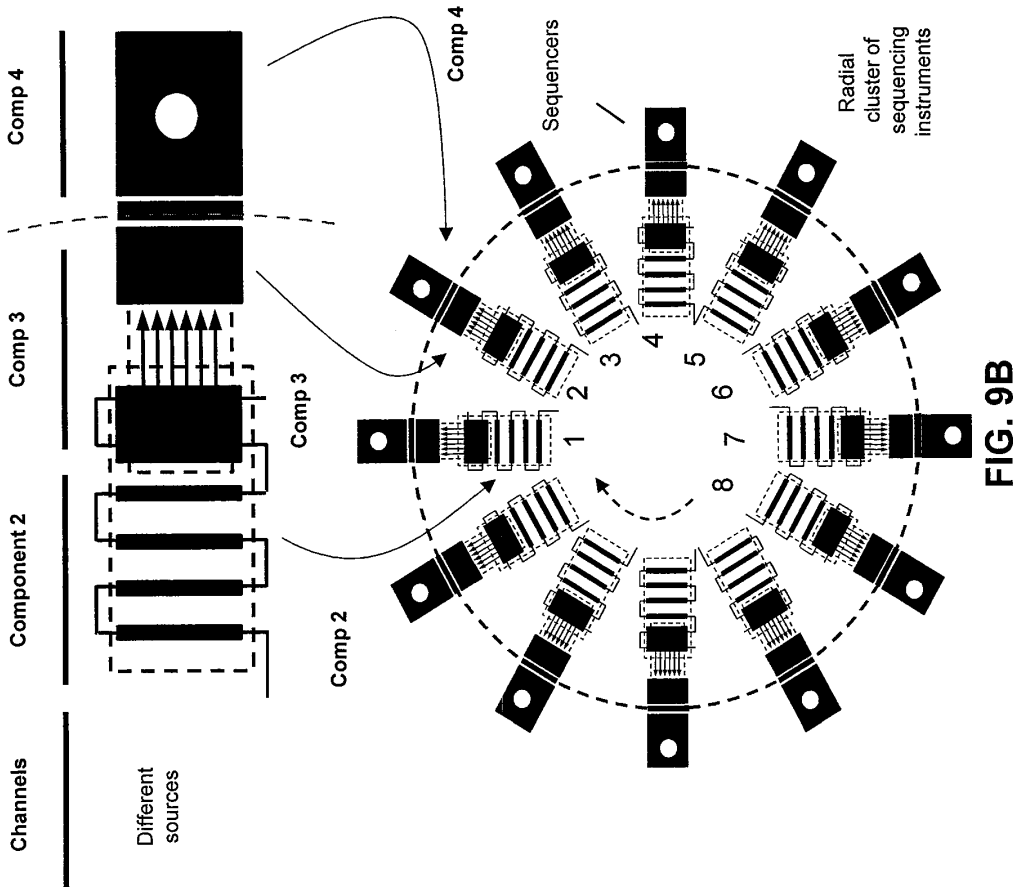
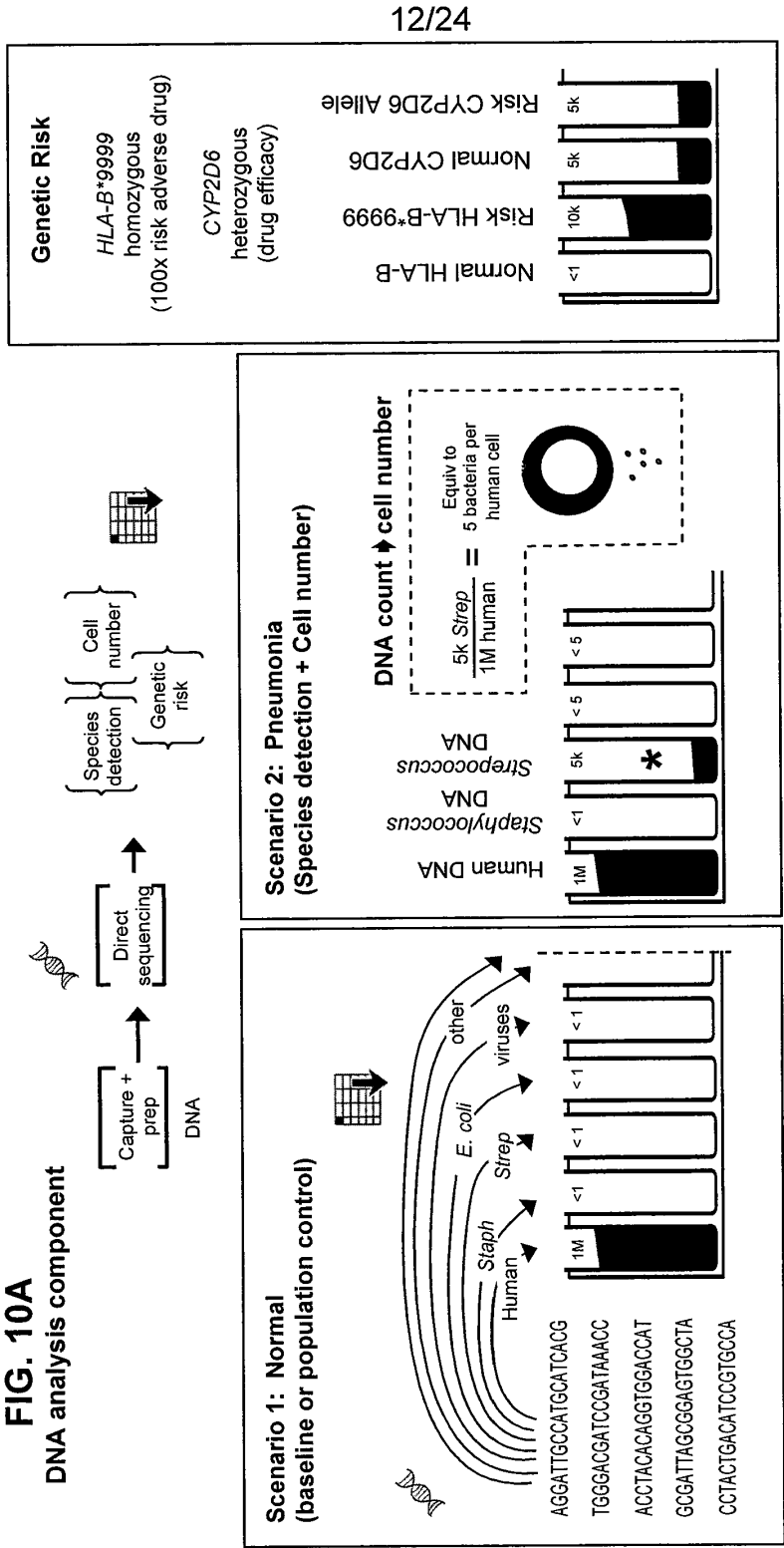


FIG. 9A

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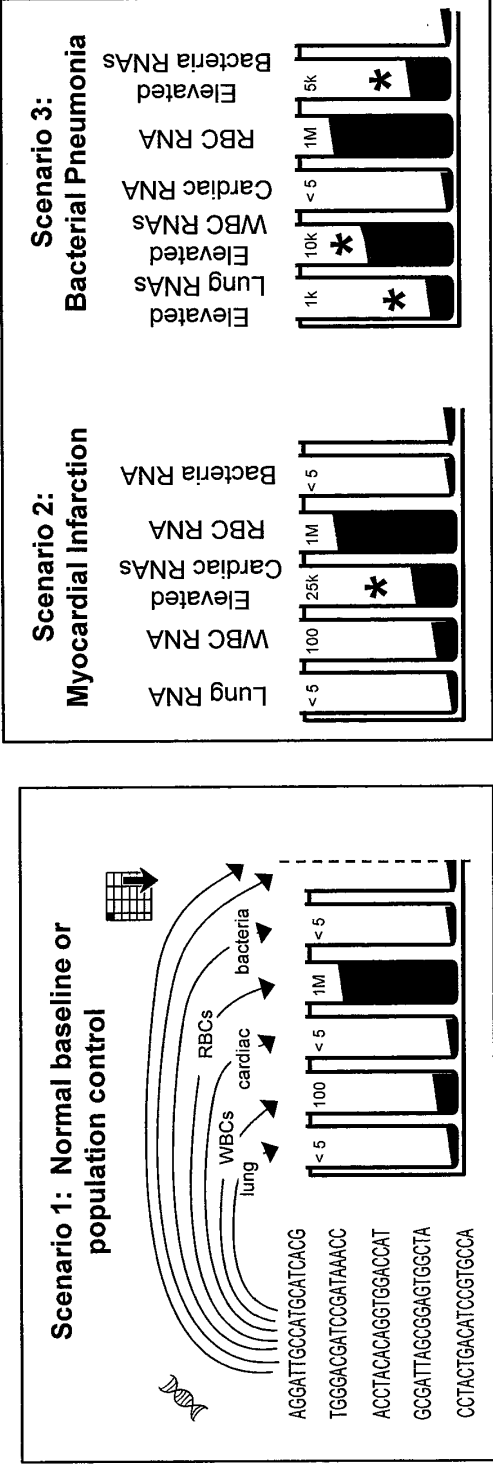
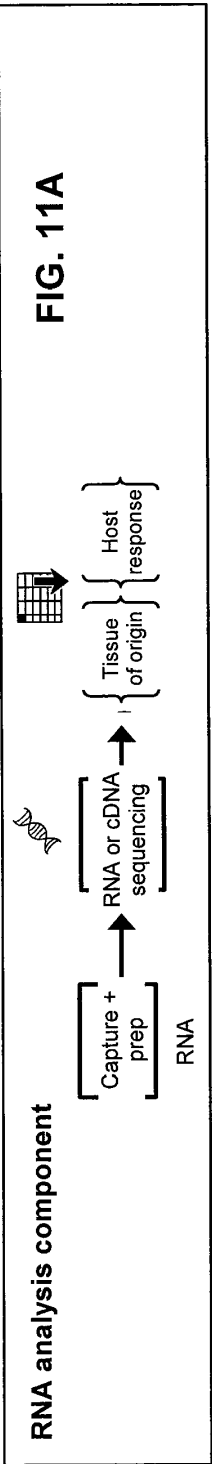


FIG. 11B

Reads sorted by tissue and species of origin and counted

FIG. 11C

Cumulative detection of RNAs from different tissues and organisms in two disease settings

FIG. 12A

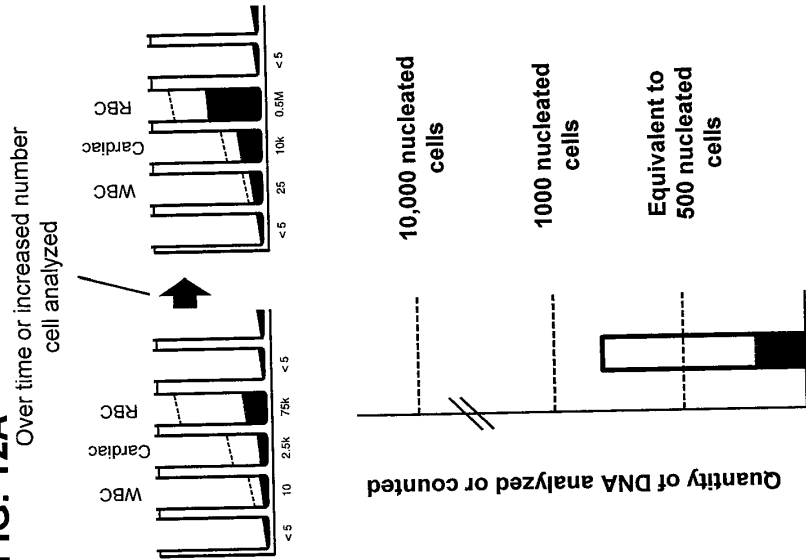
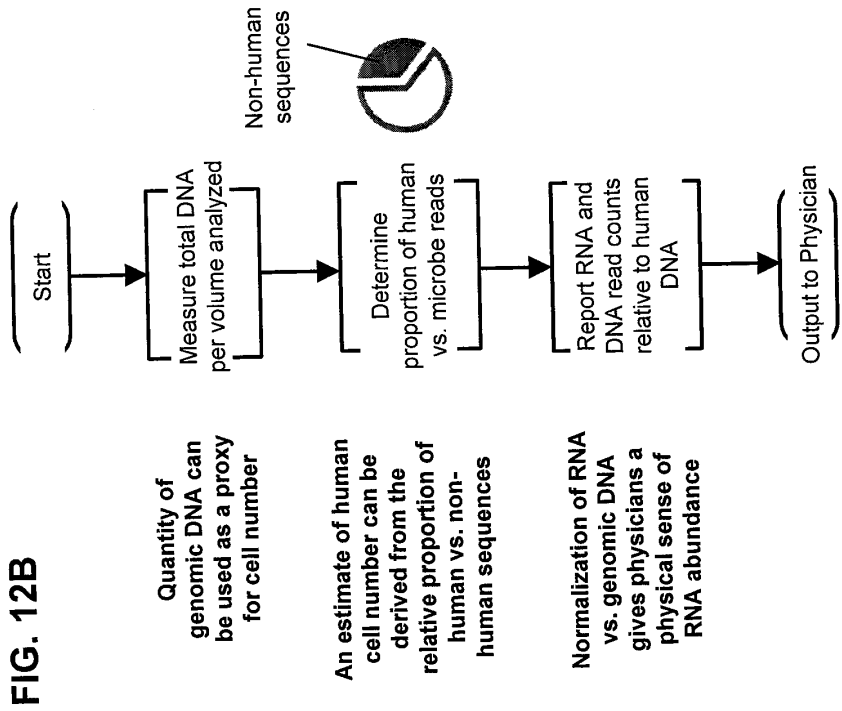
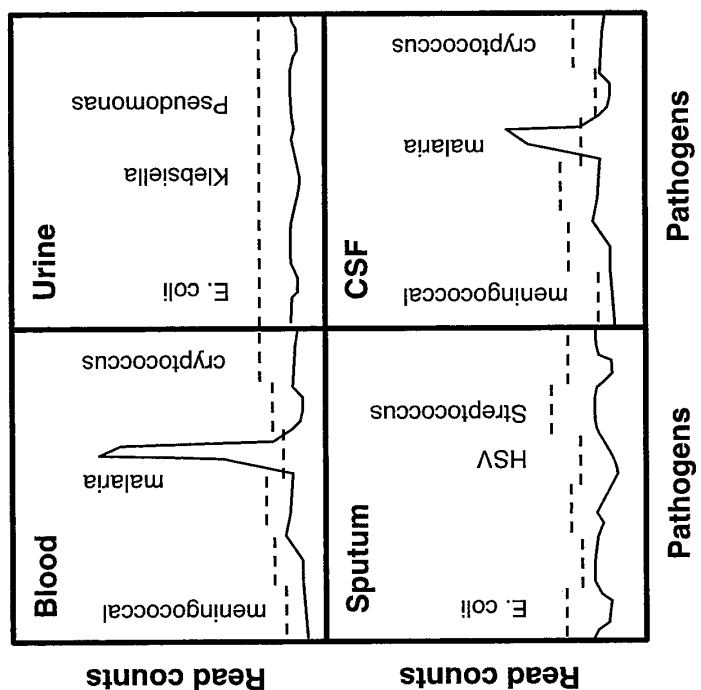
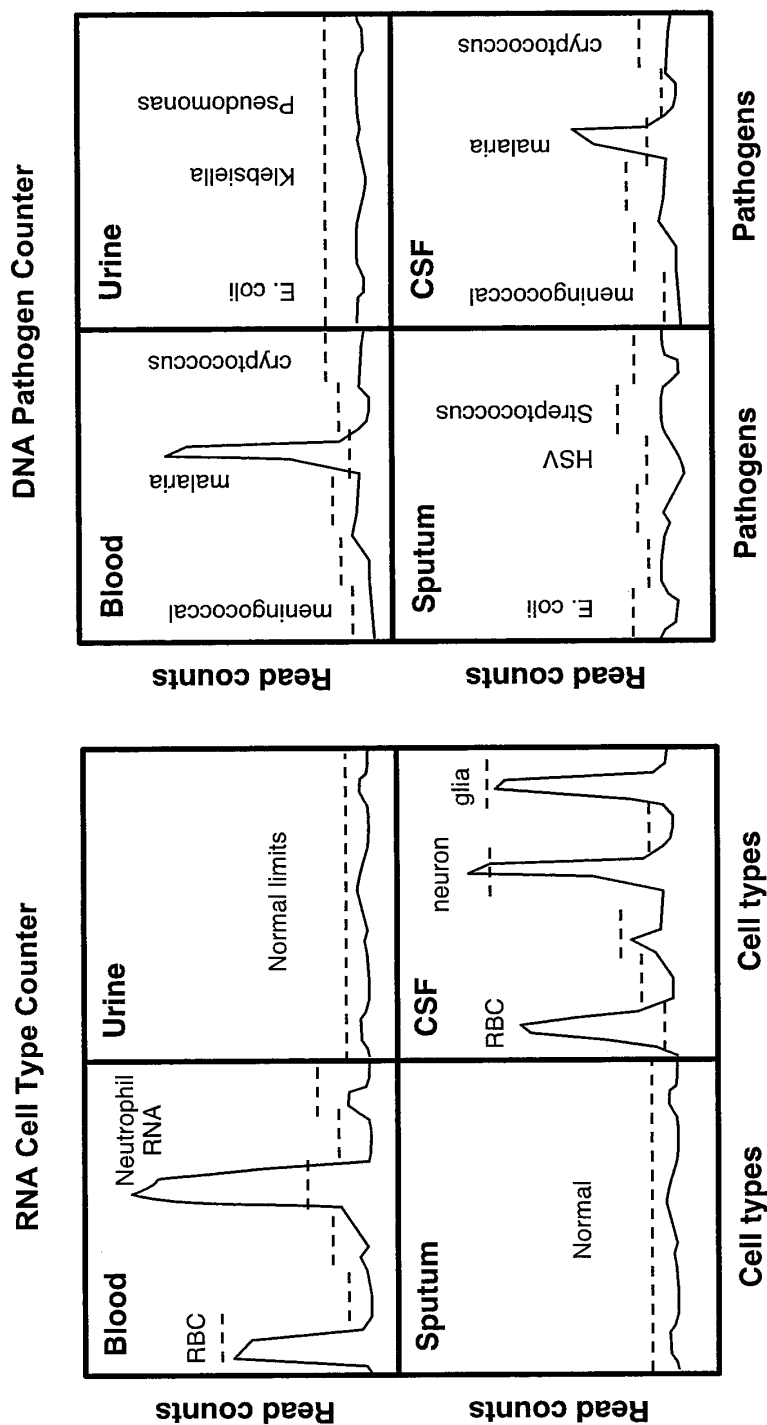


FIG. 12B





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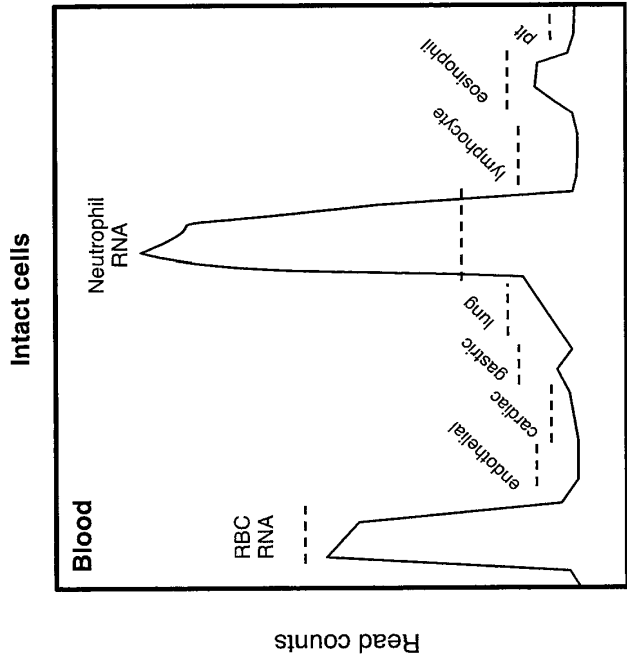


FIG. 14B

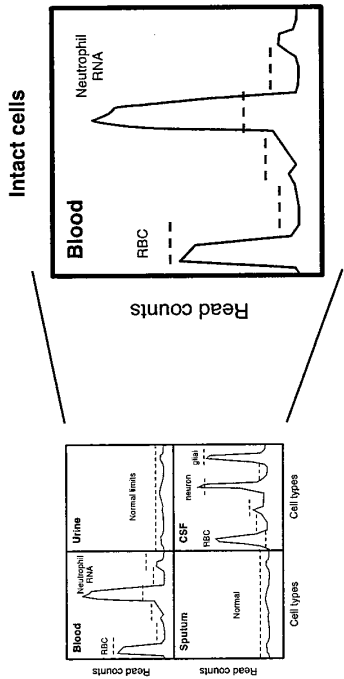
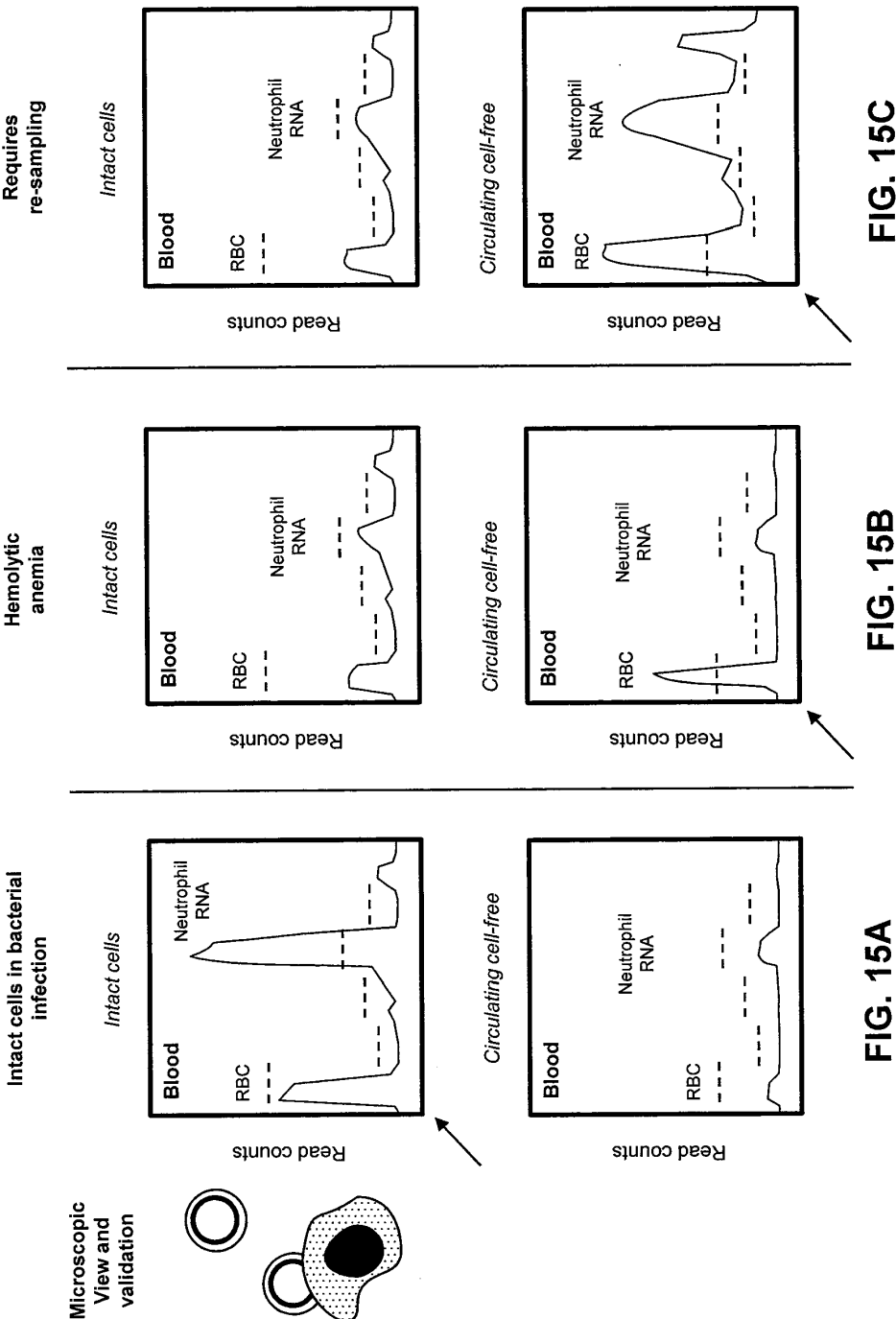


FIG. 14A

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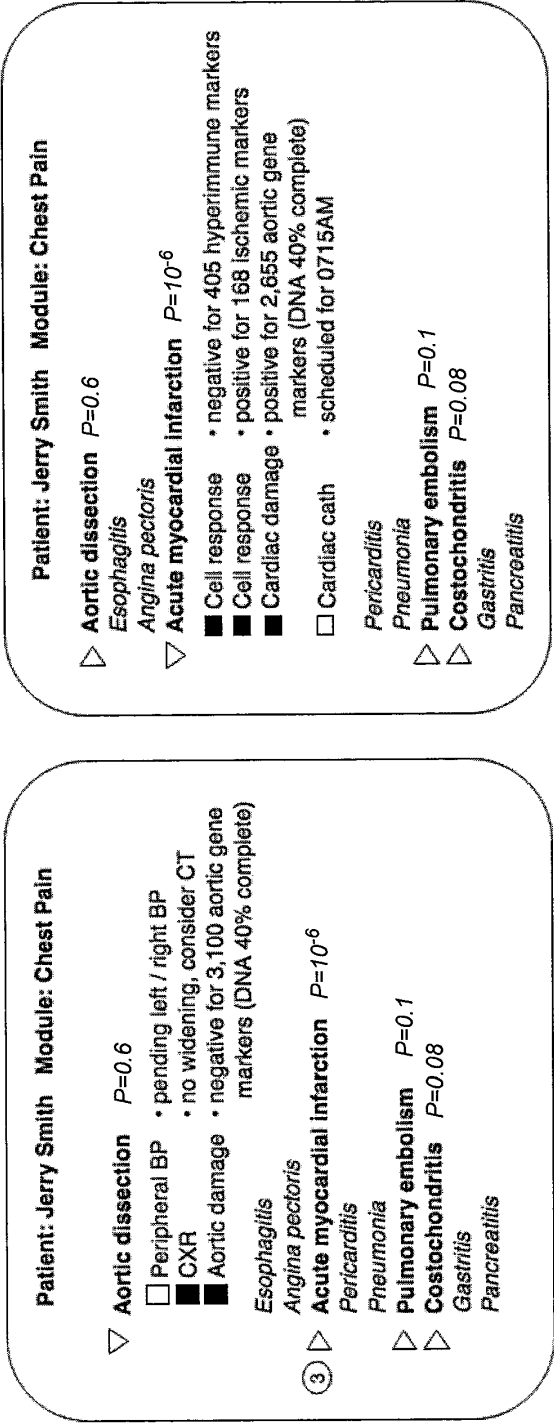


FIG. 16B

FIG. 16A

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Patient: Jerry Smith Module: Chest Pain	
Reported History of Present Illness	Summary of DNA/RNA Results
Location – Chest	Cardiac RNA detected
Quality – Pain	RNA indicates cellular damage
Severity – 6	RNA level threshold
Duration – 1 day	Histone/RNA support acute
Timing – throbbing	No evid of skeletal muscle damage
Context – with exertion	No evid of skeletal muscle damage
Modifying – none	No evid of infection
Other Symptoms – arm pain	No evid of arm damage

FIG. 16C

FIG. 17A

Early results (inconclusive)

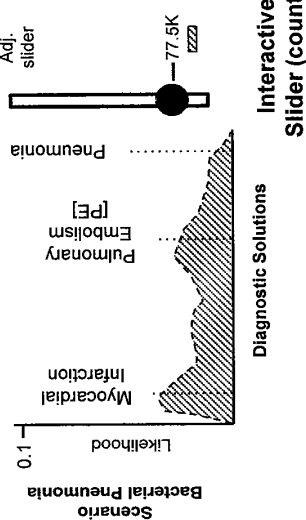


FIG. 17B Partial results
(trajectory)

partial results
(trajectory)

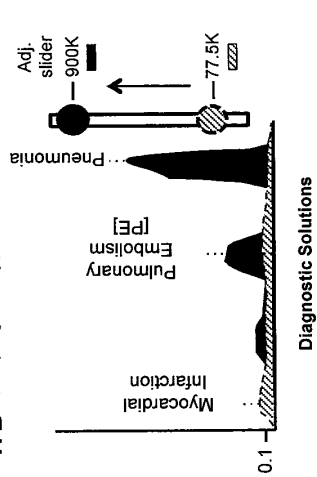


FIG. 17C

Final results
(complete)

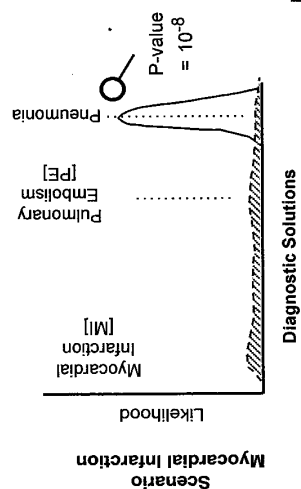


FIG. 17D

Early results (inconclusive)

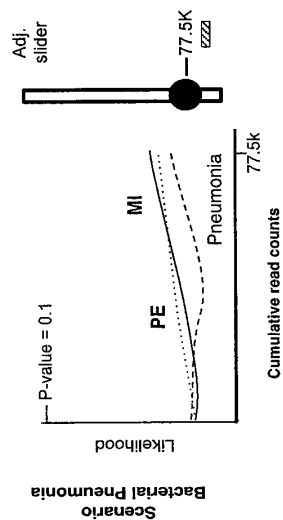


FIG. 17E
Partial results
(trajectory)

artial results
(trajectory)

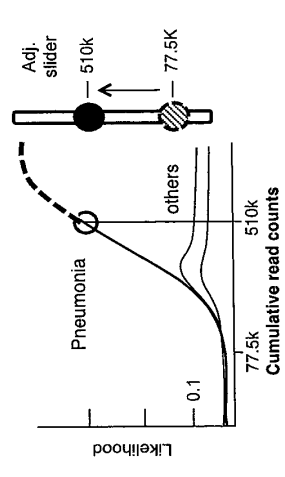
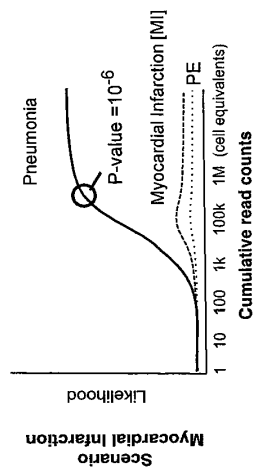
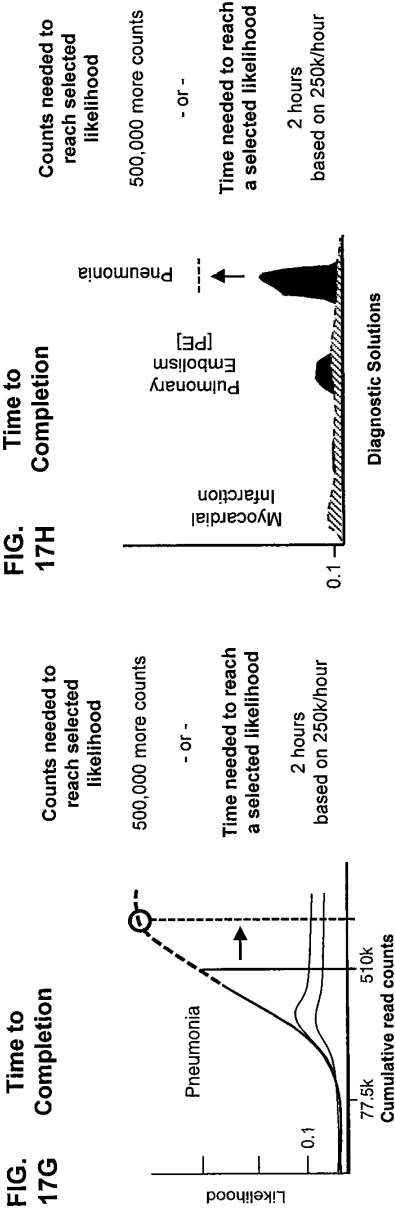
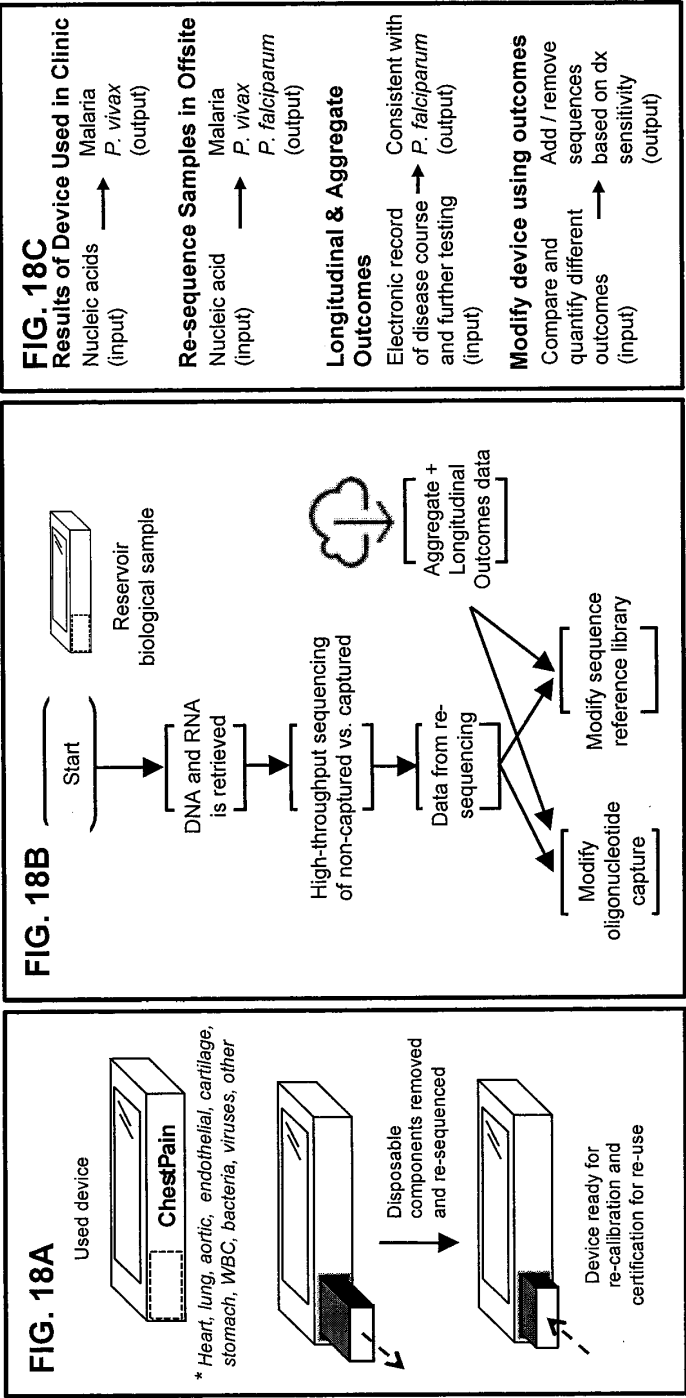


FIG. 17F

Final results (complete)







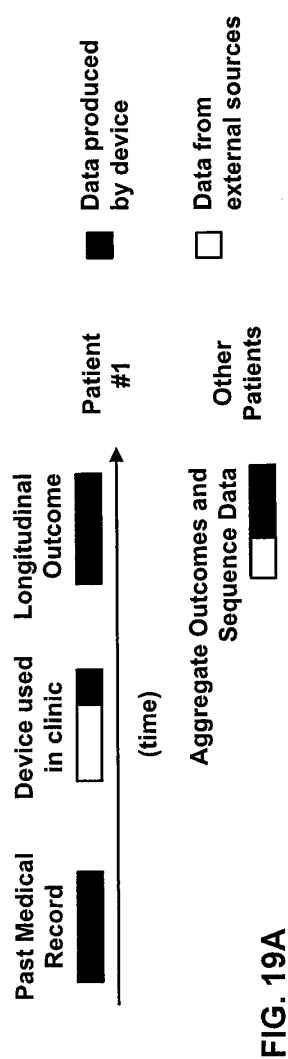


FIG. 19A



FIG. 19B

	External Data	Device Data		External Data	Device Data
Test Values (CPT, LOINC)					
	Test1	NSeq4		Test101	NSeq24
Inferred Values (Site, Resp, Micro)	Site3	Site3	✓	Micro58	Micro1
		=			≠
Diagnosis (ICD9, ICD10)	Dx1	Dx1	✓	Dx20	Dx20.1
		=			≠
Treatment or Medications (CPT, NDC, etc)	Tx1	Tx1	✓	Tx4	Tx5
		=			≠

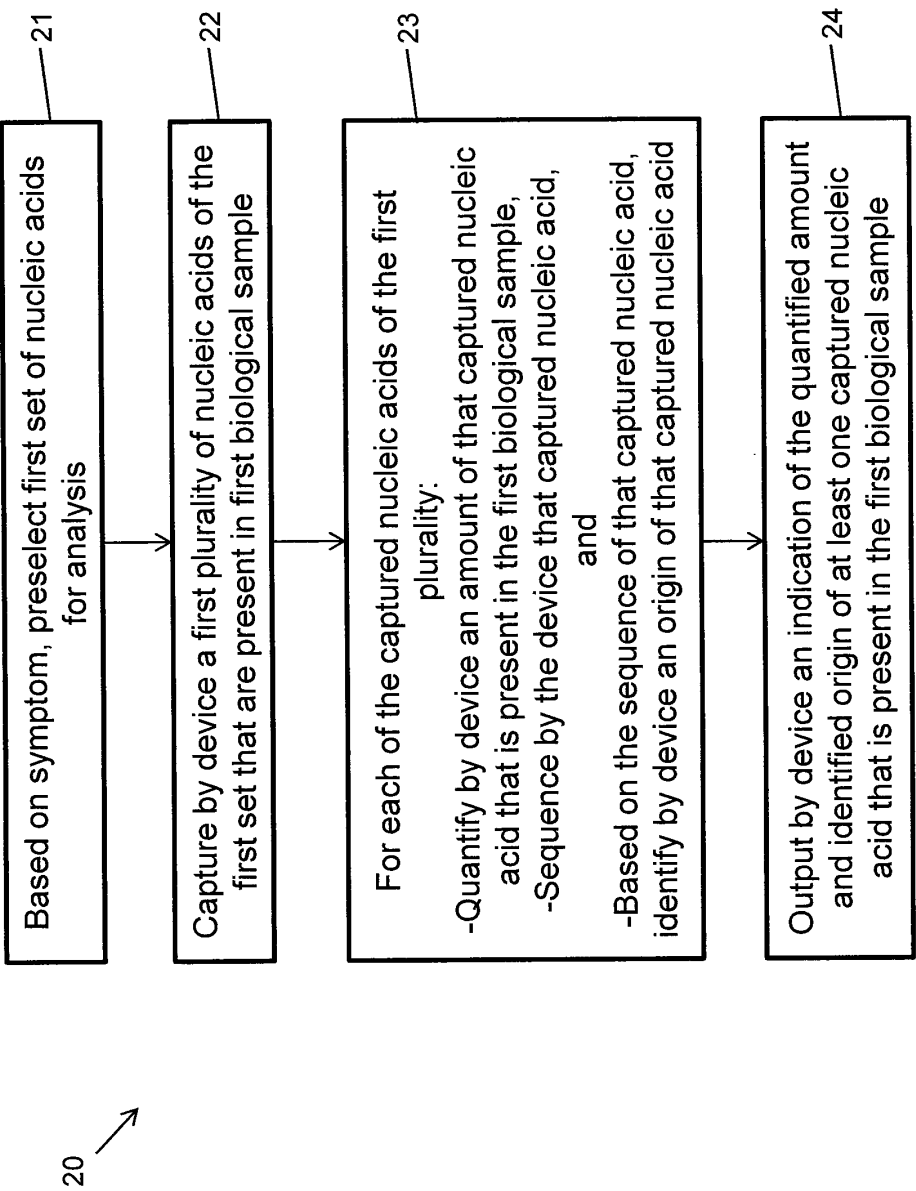


FIG. 20