Center for Biocatalysis

(National Center for the Design of Molecular Function)

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Established as a center in 1988. At the present time, no one has been able to isolate the interaction of molecules during a chemical reaction because of the speed at which it occurs. Instruments are being developed by the center that will store large amounts of information occurring simultaneously. By understanding the sequence of events during a chemical reaction, different molecules may be "programmed" for specific tasks. These "biomedical microchips" could benefit society in cancer research, industrial and environmental monitoring and waste management.

Overview		Technologies	Status	Economic Impact
Current State Contract	$100,000	*Parallel processing electronics	*Established as National Institutes of Health Biomedical Research Resource Center	*"TransAcq" module being licensed to CSA, a Provo Co.
Matching Funds	$2,201,000	*Biocatalysis	*New breakthrough in infrared imaging	*Breakthrough in infrared imaging could make significant contribution in early disease detection
Cumulative	$3,142,530	*Infrared imaging	*Approximately $2.25M in equipment installed	*"WhetStone", a center spin-off will use technology in risk assessment management
Industry Jobs Created	5	*Molecular design	*"TransAcq" parallel processing module (powers up a PC to be equal to a VAX 8650)	*New spectroscopy instrumentation being developed with local industries for special biomedical applications
Center Related Jobs	20	*Bioanalytical instrumentation	*Software written linking module to standard X windows format	
Spin-off Company	1	*Molecular components and portable instrumentation for specialized monitoring	*Two-color photothermal spectroscopy developed	
Benefiting Utah Companies	2	*Elucidate bio-catalytic processes involving metals and develop synthetic analogs		
Patents Applied	4	*New technology in automation data analysis and handling		
Patents Issued	—			
License Agreements	1			