



# Laboratory Automation Made Simple

Innovation. Pure & Simple.

#### **Our Promise to You**

Since its inception in 1994, Zymo Research has been proudly serving the scientific community by providing innovative, reliable, and high quality research tools at affordable prices. Our vision "The **Beauty** of **Science** is to Make Things **Simple**" is now truer than ever. Whether it's epigenetics, microbiomics, DNA, RNA, *E. coli*, or yeast based research, our philosophy remains the same: To provide the highest quality products in the industry while ensuring they are both simple to use and reliable in their performance.

Zymo Research stands on three pillars which form the foundation of our company: Innovation, Quality, and Customer Service. These pillars are fundamental to our culture and ensure our products meet your needs.

#### **Innovation**

Zymo Research is globally recognized for its innovation of high quality nucleic acid purification technologies. Some key innovations include streamlining DNA methylation detection, pioneering the micro-elution column for DNA and RNA purification, developing the simplest and the most sophisticated methods for high-quality plasmid DNA purification, and patenting the first RNA purification directly from TRIzol® without phase separation.

#### Quality

We are committed to quality and guarantee that all of our products and services will meet and exceed your expectations.



#### **Customer Service**

We strive for excellence in supporting your scientific endeavors. We pledge to be honest and responsible and treat you as we would like to be treated. Together, we will build a brighter future.

#### **Sustainable Solutions**

"Zymo Research is engineering sustainable solutions in the biomedical and biotechnology world. We are committed to making fundamental changes to eliminate cold-chain logistics for biological sample transportations globally, one of the most environmentally contaminating practices in the industry. Through scientific innovation, we aim to reduce environmental waste and create a more sustainable future." – Dr. Jia, CEO & Founder of Zymo Research



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# We Can Help with Laboratory Automation

Automating a laboratory workflow process comes with many challenges:

- Steep Learning Curve
- Time Investment
- Trial & Error

Zymo Research eliminates these hurdles with ready-to-use solutions so you can focus on the science, not the setup.



#### Free Consultations - Find Your Complete Solution

Collaborate with the experts at Zymo Research to find your automated solution.



#### Free Scripts on All Popular Open Platforms

Take advantage of our pre-made scripts available for Opentrons FLEX™, Accuris IsoPure™ 96, Hamilton STAR™, KingFisher™ Flex, Tecan Fluent®, and More!



#### Free Kits for Verification - Try Before You Buy

Want to try before you buy? Validate your workflow at no cost to guarantee performance before commitment.

"My questions are always answered promptly and it is much appreciated. The people providing technical support are always very helpful and friendly. Thank you very much!"

- Jason V. at Mayo Clinic



## **Consultations for Complete Solutions**



Explore Verified Processes



Personalized Support



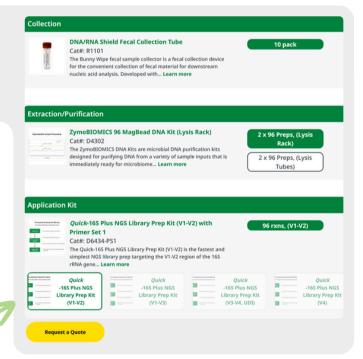
Complete End-to-End Workflow

Select Your Sample Type, Analyte, Application, & Instrument
Scan to Get Started!





2 Find the Products You Need from Sample Collection to Downstream Application



This Generates Your

Automation Workflow!



**Schedule a Personalized Consultation Today!** 

Or Contact: Automation@ZymoResearch.com

### **Free Scripts for Your Instrument**







Save time and resources with our free, ready-made scripts for popular automation platforms like Hamilton, Tecan, KingFisher, and more! Seamlessly integrate Zymo assays into your workflow without the need for custom script development.

Have unique parameters for your workflow? Reach out to one of our specialists and we can work to adapt the script to your needs at no cost.

"The support and information I recieved was great and helped us reduce time spent in feasibility testing and development."

- Kevin K. at Exact Sciences



#### **Get Your Scripts Today!**

Or Contact: Automation@ZymoResearch.com



#### **Free Kits for Trial**

Validate your automation workflow with free sample kits, offering a risk-free way to test and optimize your workflow.

Free access to sample kits allows you to easily evaluate and refine your workflow, minimizing upfront investment, streamlining implementation, and ensuring a smooth transition to automation in your lab.



No-Cost Verification



**Complete Support** 



Optimize Before You Buy

"They answered all my automation questions in a prompt manner. They are an excellent resource which helped me implement automation using Zymo kits. Thanks for your help and support!"

- Paulo L. at Stanford Medicine



# Fecal Metatranscriptomic Analysis for Precision Medicine



Advance precision medicine with reliable microbiome metatranscriptomic profiling to uncover microbial biomarkers. Accelerate clinical trials and therapeutic discoveries with our end-to-end automated solution, featuring DNA/RNA Shield<sup>TM</sup> for sample stabilization, ZymoBIOMICS MagBead Kits for complete microbial representation, and Zymo-Seq RiboFree Total RNA Library Kit for RNA-Seq.

Fecal Collection

Collecting fecal samples is simple and reliable with the **Bunny Wipe with DNA/RNA Shield™ Fecal Collection Tube (R1138)**.

The Bunny Wipe provides an easy-to-use sampling method, while DNA/RNA Shield™ Reagent preserves the integrity of microbial nucleic acids at room temperature, ensuring high-quality samples for downstream metatranscriptomic analysis.

RNA Purification

The **ZymoBIOMICS MagBead RNA Kit (R2137/R2138)** enables efficient, bias-free RNA extraction from fecal samples, while the **RNA Clean & Concentrator MagBead Kit (R1081/R1082)** adds an additional layer of insurance for purified, high-quality RNA, ready for accurate metatranscriptomic analysis. Together, they provide a streamlined, automated extraction workflow that ensures quality input for library prep.

Library Prep for NGS

The **Zymo-Seq RiboFree Total RNA Library Kit (R3000)** delivers high-quality, ribosomal RNA-depleted libraries, enabling comprehensive metatranscriptomic analysis of microbial activity and functional pathways while being fully automatable for increased efficiency.

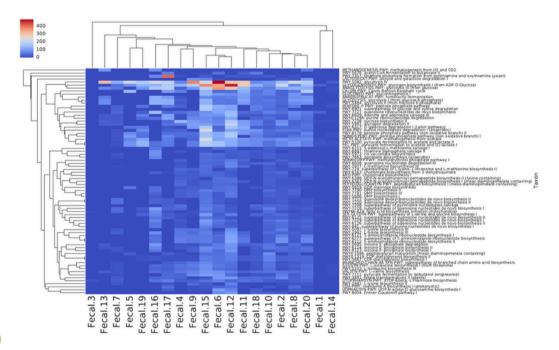
ZymoBIOMICS RNA Has Over 3,500 Citations!

### **Automated on the Opentrons Flex™**



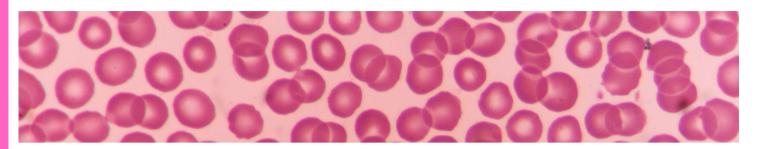
#### Metatranscriptomic Analysis for Precision Medicine Applications.





This heatmap showcases the abundance of key microbial pathways (e.g., methanogenesis, glycolysis, amino acid biosynthesis) across multiple fecal samples. With this automated metatranscriptomics workflow from Zymo Research, active metabolic functions can be uncovered at unprecedented speed and scale for personalized healthcare and wellness.

# Early Disease Detection from Cell-Free DNA



Streamline cfDNA analysis for liquid biopsy applications. Using plasma derived from industry-standard Streck Cell-Free DNA BCT® tubes, the MAGicBead<sup>TM</sup> cfDNA Kit enables efficient automated cfDNA extraction, while the Zymo-Seq Trio WGBS Kit prepares high-quality libraries for Bisulfite NGS, facilitating precise biomarker detection for early disease detection.

Plasma Collection

Blood plasma derived from **Streck Cell-Free DNA BCT® tubes**, the industry standard for liquid biopsy sample collection, is seamlessly compatible with Zymo's MAGicBead cfDNA Kit, ensuring efficient and reliable cfDNA extraction for downstream analysis.

cfDNA Extraction

The MAGicBead™ cfDNA Kit (D4086) offers superior yield and the fastest extraction protocol in the industry. Its optimized, proprietary magnetic bead-based system ensures maximum recovery of high-quality cfDNA, enabling efficient and reliable preparation for downstream applications.

Library Prep for WGBS

The **Zymo-Seq Trio WGBS Kit (D5462/D5463)** enables comprehensive whole-genome bisulfite sequencing (WGBS) of cell-free DNA, providing high-resolution methylation profiles for liquid biopsy applications. By accurately detecting both hypermethylated and hypomethylated regions, the kit facilitates the discovery and analysis of epigenetic biomarkers for early disease detection, monitoring, and classification.

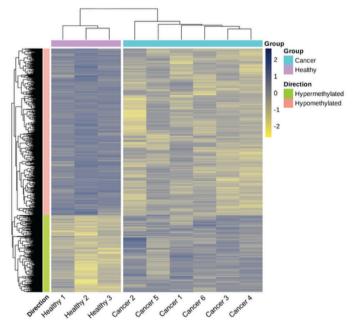
Zymo cfDNA Extraction has over

### Automated on the KingFisher™ Flex



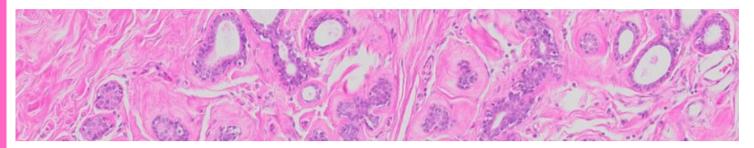
#### Differential Methylation Profiles from cfDNA for Liquid Biospy

#### **Distinct DMRs in cfDNA Samples**



This heatmap illustrates the differential DNA methylation patterns between healthy and cancer samples, grouped by methylation status (hypermethylated or hypomethylated regions). Each row represents a genomic region, while the columns correspond to individual samples. The clustering patterns highlight distinct methylation profiles, with cancer samples showing notable deviations compared to healthy controls, emphasizing the potential of methylation biomarkers for disease detection and classification.

# Biomarker Discovery in Breast Cancer Research



Unlock epigenetic insights from challenging FFPE breast tissue samples with ease. Our end-to-end automated workflow featuring our EZ DNA Methylation Lightning Automation Kit delivers reproducible and reliable methylation profiles that are NGS-ready for the Illumina® Infinium $^{\text{TM}}$  MethylationEPIC BeadChip Kit.



Sample Processing

Zymo Research's **Deparaffinization Solution (D3067-1-20)** and **2X Digestion Buffer (D3050-1)** simplify FFPE tissue processing by efficiently removing paraffin and preparing samples for nucleic acid extraction, ensuring high-quality input for epigenetic workflows.

Nucleic Acid Extraction

The *Quick-DNA/RNA MagBead Kit (R2130/R2131)* enables efficient, high-throughput nucleic acid extraction from FFPE samples, providing high-quality fractional DNA and RNA from the same sample, allowing for immediate methylation analysis without additional purification.

DNA Methylation

The **EZ DNA Methylation-Lightning Automation Kit (D5049)** streamlines bisulfite conversion, delivering fast, reliable, and high-throughput preparation of DNA for precise methylation analysis in automated epigenetic workflows.

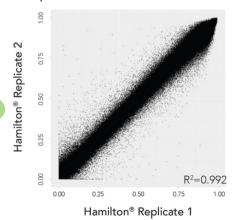
EZ DNA Methylation-Lightning Has Over

#### Automated on the Hamilton Microlab® STAR™



## Ready for Profiling with the Illumina® Infinium™ MethylationEPIC BeadChip Kit

Reproducible Automation Results



With an R<sup>2</sup> value of 0.992, this data highlights the EZ DNA Methylation-Lightning Automation Kit's precision and reliability for consistent results, even in high-throughput workflows. Perfect for studies demanding accuracy, such as biomarker discovery in breast cancer research.

#### **Tailored Automation Solutions**



#### **Custom Automated Workflows**

Not all science fits in a kit. Custom scripts & protocols are available for your unique needs.



#### **Bulk Reagent Volumes**

Zymo Research offers **ISO 9001:2015** manufacturing for custom, large scale solutions.



#### **Collaborative Support**

Direct access to in-house scientists & automation experts to help you achieve your goals.



#### **Custom Pre-Filled Formats Available**

- Custom OEM Labels and Packaging Available
- Compatible with All Open Deck Platforms
- Available in 96 and 16 prep sizes





#### **Schedule to Start Today!**

Or Contact: Automation@ZymoResearch.com

# **Experience Freedom with Opentrons: The Multiomic Workstation.**

Zymo Research has partnered with Opentrons to deliver a turn-key, multiomic workstation that provides NGS libraries ready for both metagenomics and metatranscriptomics - from the same sample.



#### Isolate Fractional DNA & RNA from the same source.

A truly **multiomic solution** that enables metagenomic and metatranscriptomic applications from the same sample.



#### A Complete Workflow from Sample to Library.

An **end-to-end workflow** that handles sample processing, library prep, and everything in between.



#### A Turn-Key, Standardized Solution.

Pre-filled **Load N' Go** reagent plates and **pre-scripted** workflows enable a truly standardized solution that works out of the box.





# Find Out if it's Right for You!

Or Contact: Automation@ZymoResearch.com

# Simplify & Standardize with the Load N' Go Format



Standardized, Turn-key Extraction



Free Scripts Available



Save Time & Money

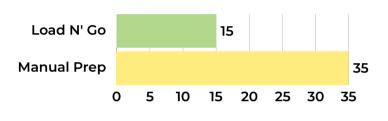
#### The Load N' Go Advantage

The Pre-filled Load N' Go format eliminates repetitive labor and error potential for high-throughput automated workflows while standardizing the process out of the box.

Consolidate consumable usage to just 1 rack of tips for both liquid handling and magnetic bead transfer platforms.

# ection

#### **Hands on Time Comparison**



Note: Figures are from Plate Preparation of the Quick-DNA/RNA HT and the Load N' Go Quick-DNA/RNA HT kits for the KingFisher™ Flex.

#### **Compatible with All Open Platforms**

Compatible with Opentrons FLEX™, Accuris IsoPure™ 96, Hamilton STAR™, KingFisher™ Flex, Tecan Fluent®, and More!



Field of Interest	Kit Name	Cat. Number	Analyte	<b>Prep Size</b>
<b>Nucleic Acid Purification</b>	Load N' Go Quick-DNA/RNA HT	R2152	DNA/RNA	96
Microbiome	Load N' Go ZymoBIOMICS DNA MagBead Kit	D4311	DNA	96
Viral	Load N' Go Quick-DNA/RNA Viral Kit	R2143	DNA/RNA	96

# **All Automation Products**

# Microbiome

ZymoBIOMICS Oral Microbiome Standard

Sample Collection & Preservation	Cat. No.	Size
DNA/RNA Shield™	R1100-50	50 mL
DNA/RNA Shield™ (2x Concentrate)	R1200-25	25 mL
DNA/RNA Shield™ Fecal Collection Tube	R1101	10 Pack
Bunny Wipe Fecal Sample Collector	R1133-10	10 Wipes
DNA/RNA Shield™ SafeCollect Swab Collection Kit	R1161	1 Collection Kit
DNA/RNA Shield™ Collection Tube w/ Swab	R1107	50 Pack
DNA/RNA Shield™ SafeCollect Saliva Collection Kit	R1211	1 Collection Kit
DNA/RNA Shield™ Blood Collection Tube	R1150	50 Pack
Sample Processing & Lysis	Cat. No.	Size
ZR BashingBead Lysis Tubes (0.1 & 0.5 mm)	S6012-50	50 Pack
ZymoBIOMICS BashingBead Lysis Rack (0.1 & 0.5 mm)	S6002-96-6	1 Rack
ZymoBIOMICS BashingBead Lysis Rack (0.1 $\&$ 0.5 mm) w/ Heat Sealing Foils	S6002-96-7	1 Rack
Extraction Kits	Cat. No.	Size
ZymoBIOMICS 96 MagBead DNA Kit	D4302	2 x 96 Preps
ZymoBIOMICS 96 MagBead DNA Kit - Dx	D4302-E	2 x 96 Preps
Load N' Go ZymoBIOMICS DNA MagBead Kit	D4311	96 Preps
ZymoBIOMICS MagBead RNA	R2137/R2138	96 Preps / 4 x 96 Preps
ZymoBIOMICS MagBead DNA/RNA	R2135/R2136	96 Preps / 4 x 96 Preps
Library Prep	Cat. No.	Size
Quick-16S Plus NGS Library Prep Kit (v1-v3)	D6440-PS1	96 Preps
Quick-16S Plus NGS Library Prep Kit (v1-v2)	D6434-PS1	96 Preps
Quick-16S Plus NGS Library Prep Kit (v3-v4, UDI)	D6421-PS1 - D6421-PS8	96 Preps
Quick-16S Plus NGS Library Prep Kit (v4)	D6430-PS1 - D6430-PS4	96 Preps
Quick-ITS Plus NGS Library Prep Kit (UDI)	D6425-PS1 - D6425-PS4	96 Preps
Controls	Cat. No.	Size
50111013		
ZymoBIOMICS Microbial Community Standard	D6300	10 Preps
	D6300 D6323	10 Preps

D6332

10 Preps

# **Epigenetics & DNA Methylation**

Sample Collection & Preservation	Cat. No.	Size
DNA/RNA Shield™	R1100-50	50 mL
DNA/RNA Shield™ (2x Concentrate)	R1100-25	25 mL
DNA/RNA Shield™ SafeCollect Swab Collection Kit	R1161	1 Collection Kit
DNA/RNA Shield™ Collection Tube w/ Swab	R1107	50 Pack
DNA/RNA Shield™ SafeCollect Saliva Collection Kit	R1211	1 Collection Kit
DNA/RNA Shield™ Blood Collection Tube	R1150	50 Pack
Sample Processing & Lysis	Cat. No.	Size
ZR BashingBead Lysis Tubes (0.1 & 0.5 mm)	S6012-50	50 Pack
ZR BashingBead Lysis Tubes (0.1 & 2.0 mm)	S6014-50	50 Pack
Deparaffinization Solution	D3067-1-20	20 mL
2X Digestion Buffer	D3001-2-20	20 mL
Proteinase K w/ Storage Buffer Set	D3001-2-60	60 mg
Extraction Kits	Cat. No.	Size
Quick-DNA Magbead Plus Kit	D4081/D4082	96 Preps / 4 x 96 Preps
Quick-DNA/RNA Magbead Kit	R2130/R2131	96 Preps / 4 x 96 Preps
Methylation Kits	Cat. No.	Size
EZ-96 DNA Methylation-Lightning MagPrep	D5046/D5047	4 x 96 Preps / 8 x 96 Preps
EZ-96 DNA Methylation MagPrep	D5040/D5041	4 x 96 Preps / 8 x 96 Preps
EZ-96 DNA Methylation-Gold MagPrep	D5042/D5043	4 x 96 Preps / 8 x 96 Preps
EZ-96 DNA Methylation-Direct MagPrep	D5044/D5045	4 x 96 Preps / 8 x 96 Preps
Library Prep	Cat. No.	Size
Zymo-Seq Trio WGBS Library Kit	D5462/D5463	24 Preps / 96 Preps
Zymo-Seq WGBS Library Kit	D5465	24 Preps
Zymo-Seq RRBS Library Prep Kit	D5460/D5461	24 Preps / 48 Preps
Zymo-Seq ATAC Library Kit	D5458	12 Preps
Pico Methyl-Seq Library Prep Kit	D5455/D5456	10 Preps / 25 Preps
RRHP 5-hmC Library Prep Kit	D5450/D5451	12 Preps / 25 Preps

# Plasmid

Extraction Kits	Cat. No.	Size	ZVMO Remain	7
Zyppy-96 Plasmid MagBead Miniprep Kit	D4100/D4101	96 Preps / 4 x 96 Pr	eps	

# Extraction Kits Cat. No. Size MAGicBead™ cfDNA Isolation Kit D4086 2 mL x 50 Preps Library Prep Cat. No. Size Zymo-Seq Trio WGBS Library Kit D5462/D5463 24 Preps / 96 Preps

#### RNA from TRIZOL **Sample Collection & Preservation** Cat. No. Size R2050-1-200 200 mL TRI Reagent Cat. No. Size **Extraction Kits** Direct-zol-96 MagBead RNA R2100/R2102 96 Preps / 4 x 96 Preps Library Prep & PCR Cat. No. Size Zymo-Seq RiboFree Total RNA Library Kit R3000/R3003 12 Preps / 96 Preps ZymoScript One-Step RT-qPCR Kit R3014 100 Reactions

# General Nucleic Acid Purification

Sample Collection & Preservation	Cat. No.	Size	YMO
DNA/RNA Shield™	R1100-50	50 mL	
DNA/RNA Shield™ (2x Concentrate)	R1200-25	25 mL	
DNA/RNA Shield $^{\text{\tiny TM}}$ Blood Collection Tube	R1150	50 Pack	
DNA/RNA Shield™ SafeCollect Swab Collection Kit	R1161	1 Collection Kit	
DNA/RNA Shield™ Collection Tube w/ Swab	R1107	50 Pack	
DNA/RNA Shield™ SafeCollect Saliva Collection Kit	R1211	1 Collection Kit	

Extraction Kits	Cat. No.	Size
Quick-DNA Magbead Plus	D4081/D4082	96 Preps / 4 x 96 Preps
Quick-DNA HMW Magbead	D6060	96 Preps
Quick-RNA MagBead	R2132/R2133	96 Preps / 4 x 96 Preps
Quick-DNA/RNA MagBead	R2130/R2131	96 Preps / 4 x 96 Preps
Quick-DNA/RNA HT	R2150/R2151	250 Preps / 1,000 Preps
Quick-DNA/RNA Viral MagBead	R2140/R2141	250 Preps / 1,000 Preps

Zymo-Seg Trio WGBS Library Kit		Size
Zymo-seq mo wabs cibrary kit	D5462/D5463	24 Preps / 96 Preps
Quick-16S Plus NGS Library Prep Kit (v1-v3)	D6440-PS1	96 Preps
Quick-16S Plus NGS Library Prep Kit (v1-v2)	D6434-PS1	96 Preps
Quick-16S Plus NGS Library Prep Kit (v3-v4, UDI)	D6421-PS1 - D6421-PS8	96 Preps
Quick-16S Plus NGS Library Prep Kit (v4)	D6430-PS1 - D6430-PS4	96 Preps
Quick-ITS Plus NGS Library Prep Kit	D6424-PS1 - D6424-PS4	96 Preps
Zymo-Seq RiboFree Total RNA Library Kit	R3000/R3003	12 Preps / 96 Preps
ZymoTaq DNA Polymerase	E2001/E2002	50 Preps / 200 Preps
ZymoScript One-Step RT-qPCR Kit	R3014	100 Reactions

# Clean-up & Library Prep

Clean-Up / Purification	Cat. No.	Size	ZYMO
DNA Clean & Concentrator MagBead Kit	D4012	100 Preps	
RNA Clean & Concentrator MagBead Kit	R1081	96 Preps	
RNA Clean & Concentrator MagBead Kit (Supplied with DNase I Set)	R1082	96 Preps	

Library Prep & PCR	Cat. No.	Size
Zymo-Seq RiboFree Total RNA Library Kit	R3000/R3003	12 Preps / 96 Preps
ZymoScript One-Step RT-qPCR Kit	R3014	100 Reactions
Zymo-Seq WGBS Library Kit	D5465	24 Preps
Zymo-Seq RRBS Library Prep Kit	D5460/D5461	24 Preps / 48 Preps
Zymo-Seq ATAC Library Kit	D5458	12 Preps
Pico Methyl-Seq Library Prep Kit	D5455/D5456	10 Preps / 25 Preps
RRHP 5-hmC Library Prep Kit	D5450/D5451	12 Preps / 25 Preps
Zymo-Seq Trio WGBS Library Kit	D5462/D5463	24 Preps / 96 Preps
Quick-16S Plus NGS Library Prep Kit (v1-v3)	D6440-PS1	96 Preps
Quick-16S Plus NGS Library Prep Kit (v1-v2)	D6434-PS1	96 Preps
Quick-16S Plus NGS Library Prep Kit (v3-v4, UDI)	D6421-PS1 - D6421-PS8	8 96 Preps
Quick-16S Plus NGS Library Prep Kit (v4)	D6430-PS1 - D6430-PS	4 96 Preps
Quick-ITS Plus NGS Library Prep Kit	D6424-PS1 - D6424-PS4	4 96 Preps

# **NOTES**

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The **BEAUTY** of **SCIENCE** is to Make Things **SIMPLE**®

