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Cover
See Andreas Marx *et al.*, pp. 833–840. Image reproduced by permission of Florian Stumpf, University of Konstanz from *RSC Chem. Biol.*, 2024, **5**, 833.

REVIEW

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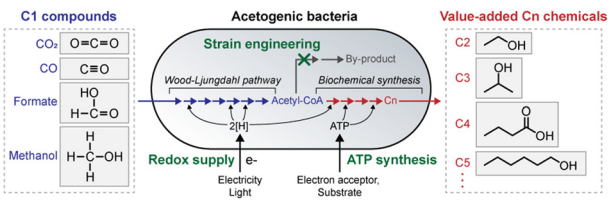
Harnessing acetogenic bacteria for one-carbon valorization toward sustainable chemical production

Jiyun Bae, Chanho Park, Hyunwoo Jung, Sangrak Jin and Byung-Kwan Cho*



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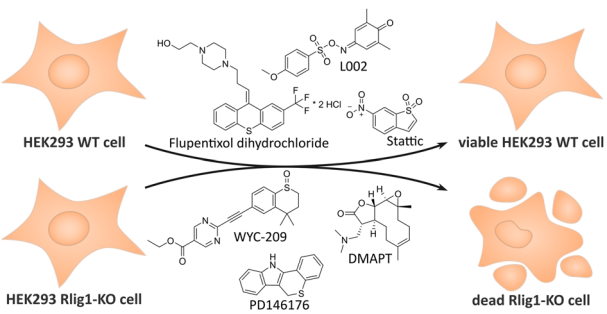
Identification of small molecules that are synthetically lethal upon knockout of the RNA ligase Rlig1 in human cells

Florian M. Stumpf, Silke Müller and Andreas Marx*



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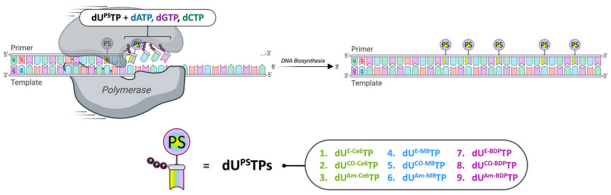
A toolbox for enzymatic modification of nucleic acids with photosensitizers for photodynamic therapy

Germain Niogret, Camille Chériaux, Frédéric Bonhomme, Fabienne Levi-Acobas, Carlotta Figliola, Gilles Ulrich, Gilles Gasser* and Marcel Hollenstein*



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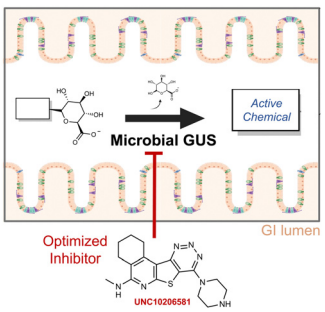
Advanced piperazine-containing inhibitors target microbial β-glucuronidases linked to gut toxicity

Amanda L. Graboski, Joshua B. Simpson, Samuel J. Pellock, Naimee Mehta, Benjamin C. Creekmore, Yamuna Ariyarathna, Aadra P. Bhatt, Parth B. Jariwala, Josh J. Sekela, Mark E. Kowalewski, Natalie K. Barker, Angie L. Mordant, Valentina B. Borlandelli, Hermen Overkleeft, Laura E. Herring, Jian Jin, Lindsey I. James and Matthew R. Redinbo*



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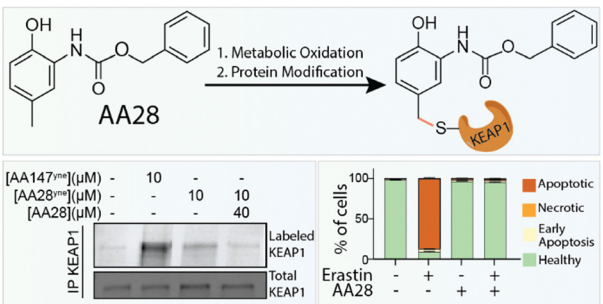
Metabolically activated proteostasis regulators that protect against erastin-induced ferroptosis

Gabriel M. Kline, Nicole Madrazo, Christian M. Cole, Meera Pannikkat, Michael J. Bollong, Jessica D. Rosarda, Jeffery W. Kelly* and R. Luke Wiseman*



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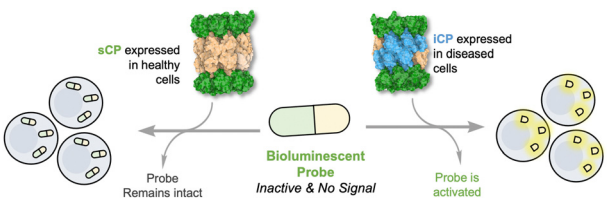
Caged aminoluciferin probe for bioluminescent immunoproteasome activity analysis

Cody A. Loy and Darci J. Trader*



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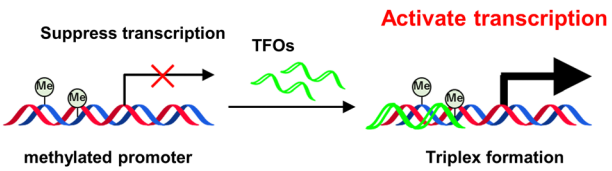

Novel strategy for activating gene expression through triplex DNA formation targeting epigenetically suppressed genes

Ryotaro Notomi, Shigeki Sasaki and Yosuke Taniguchi*

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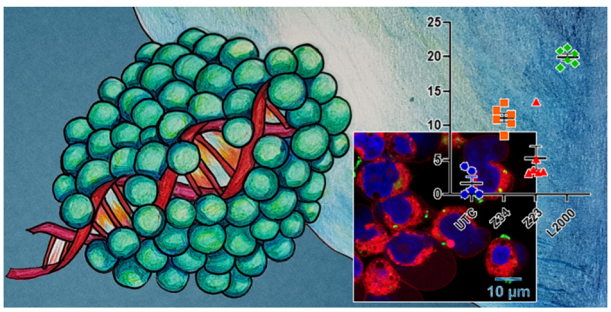

Peptide dendrimers transfecting CRISPR/Cas9 plasmid DNA: optimization and mechanism

Susanna Zamolo, Elena Zakharova, Lise Boursinhac, Florian Hollfelder, Tamis Darbre* and Jean-Louis Reymond*

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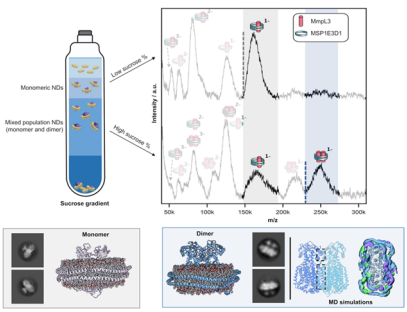

The mycobacterium lipid transporter MmpL3 is dimeric in detergent solution, SMALPs and reconstituted nanodiscs

Sara Cioccolo, Joseph D. Barritt, Naomi Pollock, Zoe Hall, Julia Babuta, Pooja Sridhar, Alicia Just, Nina Morgner, Tim Dafforn, Ian Gould and Bernadette Byrne*

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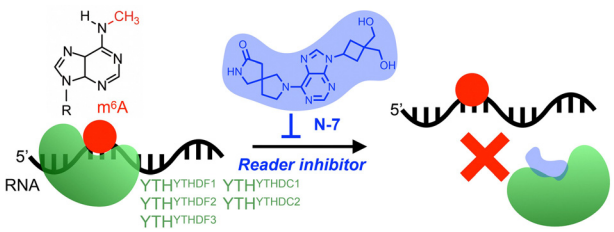

Discovery of a new inhibitor for YTH domain-containing m^{6}A RNA readers

Chuan-Hui Wang and Huiqing Zhou*

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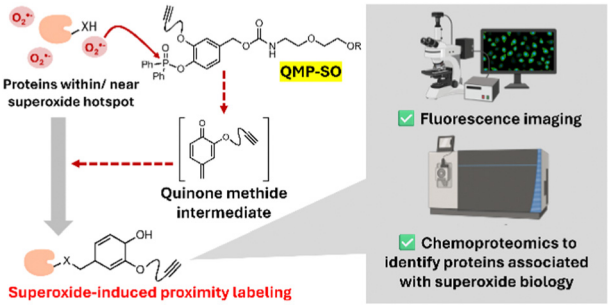
Superoxide-responsive quinone methide precursors (QMP-SOs) to study superoxide biology by proximity labeling and chemoproteomics

Hinyuk Lai and Clive Yik-Sham Chung*



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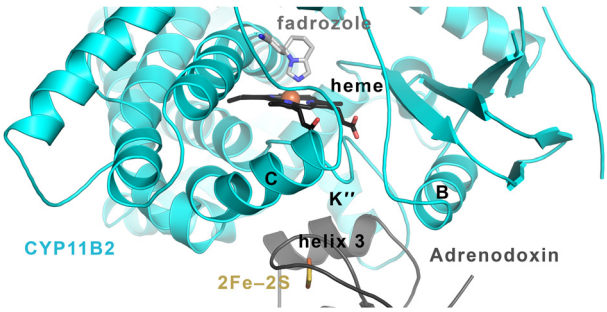
Adrenodoxin allosterically alters human cytochrome P450 11B enzymes to accelerate substrate binding and decelerate release

Cara L. Loomis, Sang-Choul Im and Emily E. Scott*