

## Bibliography

### Description

Andre, S.; Pieters, R. J.; Vrasidas, I.; Kaltner, H.; Kuwabara, I.; Liu, F. T.; Liskamp, R. M. J.; Gabius, H. J. Wedgelike Glycodendrimers as Inhibitors of Binding of Mammalian Galectins to Glycoproteins, Lactose Maxiclusters, and Cell Surface Glycoconjugates. *ChemBioChem* **2001**, 2 (11), 822–830. [https://doi.org/10.1002/1439-7633\(20011105\)2:11<822::AID-CBIC822>3.0.CO;2-W](https://doi.org/10.1002/1439-7633(20011105)2:11<822::AID-CBIC822>3.0.CO;2-W).

Audfray, A.; Varrot, A.; Imbert, A. Bacteria Love Our Sugars: Interaction between Soluble Lectins and Human Fucosylated Glycans, Structures, Thermodynamics and Design of Competing Glycocompounds. *Comptes Rendus Chim.* **2013**, 16 (5), 482–490. <https://doi.org/10.1016/j.crci.2012.11.021>.

Angioletti-uberti, StefanoTheory, simulations and the design of functionalized nanoparticles for biomedical applications : A. S. M. P. Theory, Simulations and the Design of Functionalized Nanoparticles for Biomedical Applications: A Soft Matter Perspective. *npj Comput. Mater.* **2017**, No. October, 1–15. <https://doi.org/10.1038/s41524-017-0050-y>.

Bandlow, V.; Liese, S.; Lauster, D.; Ludwig, K.; Netz, R. R.; Herrmann, A.; Seitz, O. Spatial Screening of Hemagglutinin on Influenza A Virus Particles: Sialyl-LacNAc Displays on DNA and PEG Scaffolds Reveal the Requirements for Bivalence Enhanced Interactions with Weak Monovalent Binders. *J. Am. Chem. Soc.* **2017**, 139 (45), 16389–16397. <https://doi.org/10.1021/jacs.7b09967>.

Bernardi, A.; Jiménez-Barbero, J.; Casnati, A.; De Castro, C.; Darbre, T.; Fieschi, F.; Finne, J.; Funken, H.; Jaeger, K.-E.; Lahmann, M.; Lindhorst, T. K.; Marradi, M.; Messner, P.; Molinaro, A.; Murphy, P. V.; Nativi, C.; Oscarson, S.; Penadés, S.; Peri, F.; Pieters, R. J.; Renaudet, O.; Reymond, J.-L.; Richichi, B.; Rojo, J.; Sansone, F.; Schäffer, C.; Turnbull, W. B.; Velasco-Torrijos, T.; Vidal, S.; Vincent, S.; Wennekes, T.; Zuilhof, H.; Imbert, A. Multivalent Glycoconjugates as Anti-Pathogenic Agents. *Chem. Soc. Rev.* **2013**, 42 (11), 4709–4727. <https://doi.org/10.1039/C2CS35408J>.

Bernetti, M.; Masetti, M.; Rocchia, W.; Cavalli, A. Kinetics of Drug Binding and Residence Time. *Annu. Rev. Phys. Chem.* **2019**, 70 (1), 143–171. <https://doi.org/10.1146/annurev-physchem-042018-052340>.

Beshr, G.; Sommer, R.; Hauck, D.; Bodin, C.; Hofmann, A.; Titz, A. Development of a Competitive Binding Assay for the Burkholderia Cenocepacia Lectin BC2L-A and Structure Activity Relationship of Natural and Synthetic Inhibitors. *MedChemComm* **2016**, 7, 519–530. <https://doi.org/10.1039/c5md00557d>.

Bhatia, S.; Camacho, L. C.; Haag, R. Pathogen Inhibition by Multivalent Ligand Architectures. *J. Am. Chem. Soc.* **2016**, 138 (28), 8654–8666. <https://doi.org/10.1021/jacs.5b12950>.

Bonnardel, F.; Mariethoz, J.; Salentin, S.; Robin, X.; Schroeder, M.; Perez, S.; Lisacek, F. D. S.; Imbert, A. Unilectin3d, a Database of Carbohydrate Binding Proteins with Curated Information on 3D

Structures and Interacting Ligands. *Nucleic Acids Res.* **2019**, 47 (D1), D1236–D1244.  
<https://doi.org/10.1093/nar/gky832>.

Boukareb, M. A.; Rousset, A.; Galanos, N.; Méar, J.; Gillon, E.; Cecioni, S.; Faure, K.; Kipnis, E.; Dessein, R.; Matthews, S. E.; Bentzmann, S. De; Guéry, B.; Cournoyer, B.; Imbert, A.; Darblade, B.; Vidal, S. Evaluation of the Anti-Adhesive Properties of Glycoclusters against *Pseudomonas Aeruginosa* in Bacterial Lung Infection. *J. Med. Chem.* **2014**, 1–12. <https://doi.org/10.1021/jm500038p>.

Burnouf, D.; Ennifar, E.; Guedich, S.; Puffer, B.; Hoffmann, G.; Bec, G.; Disdier, F.; Baltzinger, M.; Dumas, P. KinITC: A New Method for Obtaining Joint Thermodynamic and Kinetic Data by Isothermal Titration Calorimetry. *J. Am. Chem. Soc.* **2012**, 134 (1), 559–565. <https://doi.org/10.1021/ja209057d>.

Checovich, W. J.; Bolger, R. E.; Burke, T. Fluorescence Polarization – a New Tool for Cell and Molecular Biology. 1926, 254–256.

Compain, P. Multivalent Effect in Glycosidase Inhibition: The End of the Beginning. *Chem. Rec.* **2020**, 20 (1), 10–22. <https://doi.org/10.1002/tcr.201900004>.

Curk, T.; Dobnikar, J.; Frenkel, D. Design Principles for Super Selectivity Using Multivalent Interactions. Multivalency Concepts, *Res. Appl.* **2017**, 75–101.  
<https://doi.org/10.1002/9781119143505.ch3>.

Curk, T.; Dobnikar, J.; Frenkel, D. Optimal Multivalent Targeting of Membranes with Many Distinct Receptors. *Proc. Natl. Acad. Sci. U. S. A.* **2017**, 114 (28), 7210–7215.  
<https://doi.org/10.1073/pnas.1704226114>.

Dam, T. K.; Roy, R.; Pagé, D.; Brewer, C. F. Negative Cooperativity Associated with Binding of Multivalent Carbohydrates to Lectins. Thermodynamic Analysis of the “Multivalency Effect.” *Biochemistry* **2002**, 41 (4), 1351–1358. <https://doi.org/10.1021/bi015830j>.

Dam, T. K.; Oscarson, S.; Das, S. K.; Page, D.; Macaluso, F.; Brewer, C. F. Thermodynamic , Kinetic , and Electron Microscopy Studies of Concanavalin A and *Dioclea Grandiflora* Lectin Cross-Linked with Synthetic Divalent Carbohydrates \*. *J. Biol. Chem.* **2005**, 280 (10), 8640–8646.  
<https://doi.org/10.1074/jbc.M412827200>.

Dam, T. K.; Brewer, C. F. Effects of Clustered Epitopes in Multivalent Ligand-Receptor Interactions. *Biochemistry* **2008**, 47 (33), 8470–8476. <https://doi.org/10.1021/bi801208b>.

Dam, T. K.; Gerken, T. A.; Brewer, C. F. Thermodynamics of Multivalent Carbohydrate-Lectin Cross-Linking Interactions: Importance of Entropy in the Bind and Jump Mechanism. *Biochemistry* **2009**, 48 (18), 3822–3827. <https://doi.org/10.1021/bi9002919>.

Dam, T. K.; Brewer, C. F. Multivalent Lectin-Carbohydrate Interactions Energetics and Mechanisms of Binding., 1st ed.; Elsevier Inc., **2010**; Vol. 63. [https://doi.org/10.1016/S0065-2318\(10\)63005-3](https://doi.org/10.1016/S0065-2318(10)63005-3).

Dam, T. K.; Talaga, M. L.; Fan, N.; Brewer, C. F. Measuring Multivalent Binding Interactions by Isothermal Titration Calorimetry, 1st ed.; Elsevier Inc., **2016**; Vol. 567.  
<https://doi.org/10.1016/bs.mie.2015.08.013>.

Dam, T. K.; Fan, N.; Talaga, M. L.; Brewer, C. F. Stoichiometry Regulates Macromolecular Recognition and Supramolecular Assembly: *Examples From Lectin-Glycoconjugate Interaction, Second Edi.*, Elsevier, **2017**; Vol. 8. <https://doi.org/10.1016/B978-0-12-409547-2.13810-7>.

Di Iorio, D.; Huskens, J. Surface Modification with Control over Ligand Density for the Study of Multivalent Biological Systems. *ChemistryOpen* **2020**, 9 (1), 53–66.  
<https://doi.org/10.1002/open.201900290>.

Dumas, P.; Ennifar, E.; Da Veiga, C.; Bec, G.; Palau, W.; Di Primo, C.; Piñeiro, A.; Sabin, J.; Muñoz, E.; Rial, J. Extending ITC to Kinetics with KinITC. *Methods Enzymol.* **2016**, 567, 157–180.  
<https://doi.org/10.1016/bs.mie.2015.08.026>.

Ernst, B.; Magnani, J. L. From Carbohydrate Leads to Glycomimetic Drugs. *Nat. Rev. Drug Discov.* **2009**, 8 (8), 661–677. <https://doi.org/10.1038/nrd2852>.

Fujimoto, Z. Basic Procedure of X-Ray Crystallography for Analysis of Lectin–Sugar Interactions; **2014**; Vol. 1200. <https://doi.org/10.1007/978-1-4939-1292-6>.

Fukui, S.; Feizi, T.; Galustian, C.; Lawson, A. M.; Chai, W. Oligosaccharide Microarrays for High-Throughput Detection and Specificity Assignments of Carbohydrate-Protein Interactions. *Nat. Biotechnol.* **2002**, 20 (October), 1011–1017. <https://doi.org/10.1038/nbt735>.

Gabius, H. Cell Surface Glycans : The Why and How of Their Functionality as Biochemical Signals in Lectin-Mediated Information Transfer; *Critical Reviews in Immunology*, **2006**; Vol. 26.

Gabius, H. J.; Andre, S.; Jiménez-Barbero, J.; Romero, A.; Solís, D. From Lectin Structure to Functional Glycomics: Principles of the Sugar Code. *Trends Biochem. Sci.* **2011**, 36 (6), 298–313.  
<https://doi.org/10.1016/j.tibs.2011.01.005>.

Gestwicki, J. E.; Strong, L. E.; Cairo, C. W.; Boehm, F. J.; Kiessling, L. L. Cell Aggregation by Scaffolded Receptor Clusters. *Chem. Biol.* **2002**, 9 (2), 163–169. [https://doi.org/10.1016/S1074-5521\(02\)00102-3](https://doi.org/10.1016/S1074-5521(02)00102-3).

Gomez-Casado, A.; Dam, H. H.; Yilmaz, M. D.; Florea, D.; Jonkheijm, P.; Huskens, J. Probing Multivalent Interactions in a Synthetic Host-Guest Complex by Dynamic Force Spectroscopy. *J. Am. Chem. Soc.* **2011**, 133 (28), 10849–10857. <https://doi.org/10.1021/ja2016125>.

Hauck, D.; Joachim, I.; Frommeyer, B.; Varrot, A.; Philipp, B.; Möller, H. M.; Imbert, A.; Exner, T. E.; Titz, A. Discovery of Two Classes of Potent Glycomimetic Inhibitors of *Pseudomonas Aeruginosa* LecB with Distinct Binding Modes. *ACS Chem. Biol.* **2013**, 8 (8), 1775–1784.  
<https://doi.org/10.1021/cb400371r>.

Han, Z.; Pinkner, J. S.; Ford, B.; Obermann, R.; Nolan, W.; Wildman, S. A.; Hobbs, D.; Ellenberger, T.;

Cusumano, C. K.; Hultgren, S. J.; Janetka, J. W. Structure-Based Drug Design and Optimization of Mannoside Bacterial FimH Antagonists. *J. Med. Chem.* **2010**, 53 (12), 4779–4792.  
<https://doi.org/10.1021/jm100438s>.

Hardman, K. D.; Ainsworth, C. F. Structure of Concanavalin a at 2.4-å Resolution. *Biochemistry* **1972**, 11 (26), 4910–4919. <https://doi.org/10.1021/bi00776a006>.

Hirst, G. K. The Quantitative Determination of Influenza Virus and Antibodies by Means of Red Cell Agglutination. *J Exp Med* **1942**, 75 (1), 49–64.

Huang, X. Fluorescence Polarization Competition Assay: The Range of Resolvable Inhibitor Potency Is Limited by the Affinity of the Fluorescent Ligand. *J. Biomol. Screen.* **2003**, 8 (1), 34–38.  
<https://doi.org/10.1177/1087057102239666>.

Imberty, A.; Varrot, A. Microbial Recognition of Human Cell Surface Glycoconjugates. Current Opinion in Structural Biology. *Current Opinion in Structural Biology* **2008**, pp 567–576.  
<https://doi.org/10.1016/j.sbi.2008.08.001>.

Imberty, A.; Mitchell, E. P.; Wimmerová, M. Structural Basis of High-Affinity Glycan Recognition by Bacterial and Fungal Lectins. *Curr. Opin. Struct. Biol.* **2005**, 15 (5), 525–534.  
<https://doi.org/10.1016/j.sbi.2005.08.003>.

Kakehi, K.; Oda, Y.; Kinoshita, M. Fluorescence Polarization: Analysis of Carbohydrate-Protein Interaction. *Anal. Biochem.* **2001**, 297 (2), 111–116. <https://doi.org/10.1006/abio.2001.5309>.

Kitov, P. I.; Bundle, D. R. On the Nature of the Multivalency Effect: A Thermodynamic Model. *J. Am. Chem. Soc.* **2003**, 125 (52), 16271–16284. <https://doi.org/10.1021/ja038223n>.

Kohn, M.; Benito, J. M.; Mellet, C. O.; Lindhorst, T. K.; Garcia Fernández, J. M. Functional Evaluation of Carbohydrate-Centred Glycoclusters by Enzyme-Linked Lectin Assay: Ligands for Concanavalin A. *ChemBioChem* **2004**, 5 (6), 771–777. <https://doi.org/10.1002/cbic.200300807>.

Kotone Sano and Haruko Ogawa. Hemagglutination (Inhibition) Assay. *Lectins Methods Protoc. Methods Mol. Biol.* **2014**, 47–52. [https://doi.org/10.1007/978-1-4939-1292-6\\_4](https://doi.org/10.1007/978-1-4939-1292-6_4).

Laigre, E.; Goyard, D.; Tiertant, C.; Dejeu, J.; Renaudet, O. The Study of Multivalent Carbohydrate-Protein Interactions by Bio-Layer Interferometry. *Org. Biomol. Chem.* **2018**, 16 (46), 8899–8903.  
<https://doi.org/10.1039/c8ob01664j>.

Lakowicz, J. R. Principles of Fluorescence Spectroscopy, 3rd Edition, Joseph R. Lakowicz, Editor; **2006**. <https://doi.org/10.1007/978-0-387-46312-4>.

Lanfranco, R.; Jana, P. K.; Tunisi, L.; Cicuta, P.; Mognetti, B. M.; Di Michele, L.; Bruylants, G. Kinetics of Nanoparticle-Membrane Adhesion Mediated by Multivalent Interactions. *Langmuir* **2019**, 35 (6), 2002–2012. <https://doi.org/10.1021/acs.langmuir.8b02707>.

Lea, W. A.; Simeonov, A. Fluorescence Polarization Assays in Small Molecule Screening. *Expert Opin. Drug Discov.* **2011**, 6 (1), 17–32. <https://doi.org/10.1517/17460441.2011.537322>.

Lee, Y. C.; Townsend, R. R.; Hardy, M. R.; Lönnegren, J.; Arnarp, J.; Haraldsson, M.; Lönn, H. Binding of Synthetic Oligosaccharides to the Hepatic Gal/GalNAc Lectin. Dependence on Fine Structural Features. *J. Biol. Chem.* **1983**, 258 (1), 199–202.

Lee, Y. C.; Lee, R. T. Carbohydrate-Protein Interactions : Basis of Glycobiology. *Acc. Chem. Res.* **1995**, 28 (8), 321–327. <https://doi.org/10.1021/ar00056a001>.

Li, M. H.; Choi, S. K.; Leroueil, P. R.; Baker, J. R. Evaluating Binding Avidities of Populations of Heterogeneous Multivalent Ligand-Functionalized Nanoparticles. *ACS Nano* **2014**, 8 (6), 5600–5609. <https://doi.org/10.1021/nn406455s>.

Li, C.; Hon, K.; Ghosh, B.; Li, P.; Lin, H. Synthesis of Oligomeric Mannosides and Their Structure-Binding Relationship with Concanavalin A. *Chem. Asian J.* **2014**, 9, 1786–1796. <https://doi.org/10.1002/asia.201402029>.

Li, D.; Chen, L.; Wang, R.; Liu, R.; Ge, G. Synergetic Determination of Thermodynamic and Kinetic Signatures Using Isothermal Titration Calorimetry: A Full-Curve-Fitting Approach. *Anal. Chem.* **2017**, 89 (13), 7130–7138. <https://doi.org/10.1021/acs.analchem.7b01091>.

Lundquist, J. J.; Toone, E. J. The Cluster Glycoside Effect. *Chem. Rev.* **2002**, 102 (2), 555–578. <https://doi.org/10.1021/cr000418f>.

Maierhofer, C.; Rohmer, K.; Wittmann, V. Probing Multivalent Carbohydrate-Lectin Interactions by an Enzyme-Linked Lectin Assay Employing Covalently Immobilized Carbohydrates. *Bioorganic Med. Chem.* **2007**, 15 (24), 7661–7676. <https://doi.org/10.1016/j.bmc.2007.08.063>.

Mammen, M.; Dahmann, G.; Whitesides, G. M. Effective Inhibitors of Hemagglutination by Influenza Virus Synthesized from Polymers Having Active Ester Groups. Insight into the Mechanism of Inhibition. *J. Med. Chem.* **1995**, 38 (21), 4179–4190. <https://doi.org/10.1021/jm00021a007>.

Mammen, M.; Choi, S.; Whitesides, G. M. ChemInform Abstract: Polyvalent Interactions in Biological Systems: Implications for Design and Use of Multivalent Ligands and Inhibitors. *Angew. Chem. Int. Ed.* **1998**, 37, 2754–2794. <https://doi.org/10.1002/chin.199909293>.

Malik, A.; Baig, M.; Manavalan, B. Protein-Carbohydrate Interactions. *Encycl. Bioinforma. Comput. Biol.* **2018**, 1–12. <https://doi.org/10.1016/B978-0-12-809633-8.20661-4>.

Marchetti, R.; Perez, S.; Arda, A.; Imberti, A.; Jimenez-Barbero, J.; Silipo, A.; Molinaro, A. “Rules of Engagement” of Protein–Glycoconjugate Interactions: A Molecular View Achievable by Using NMR Spectroscopy and Molecular Modeling. *Chemistry Open* **2016**, 5 (4), 274–296. <https://doi.org/10.1002/open.201600024>.

- Martinez-Veracoechea, F. J.; Frenkel, D. Designing Super Selectivity in Multivalent Nano-Particle Binding. *PNAS* **2011**, 108 (27), 10963–10968. <https://doi.org/10.1073/pnas.1105351108>.
- McCoy, J. P.; Varani, J.; Goldstein, I. J. Enzyme-Linked Lectin Assay (ELLA): Use of Alkaline Phosphatase-Conjugated Griffonia Simplicifolia B4 Isolectin for the Detection of  $\beta$ -d-Galactopyranosyl End Groups. *Anal. Biochem.* **1983**, 130 (2), 437–444. [https://doi.org/10.1016/0003-2697\(83\)90613-9](https://doi.org/10.1016/0003-2697(83)90613-9).
- Meiers, J.; Siebs, E.; Zahorska, E.; Titz, A. Lectin Antagonists in Infection, Immunity, and Inflammation. *Curr. Opin. Chem. Biol.* **2019**, 53, 51–67. <https://doi.org/10.1016/j.cbpa.2019.07.005>.
- Moerke, N. J. Fluorescence Polarization (FP) Assays for Monitoring Peptide?Protein or Nucleic Acid?Protein Binding. *Curr. Protoc. Chem. Biol.* **2009**, 1 (1), 1–15. <https://doi.org/10.1002/9780470559277.ch090102>.
- Mol, N. J. De; Fischer, M. J. E. Surface Plasmon Resonance – Methods and Protocols; Springer Protocols – *Methods in Molecular Biology* 627, **2010**.
- Pang, P. C.; Chiu, P. C. N.; Lee, C. L.; Chang, L. Y.; Panico, M.; Morris, H. R.; Haslam, S. M.; Khoo, K. H.; Clark, G. F.; Yeung, W. S. B.; Dell, A. Human Sperm Binding Is Mediated by the Sialyl-Lewisx Oligosaccharide on the Zona Pellucida. *Science* (80-. ). **2011**, 333 (6050), 1761–1764. <https://doi.org/10.1126/science.1207438>.
- Peterson, K.; Kumar, R.; Stenström, O.; Verma, P.; Verma, P. R.; Håkansson, M.; Kahl-Knutsson, B.; Zetterberg, F.; Leffler, H.; Akke, M.; Logan, D. T.; Nilsson, U. J. Systematic Tuning of Fluoro-Galectin-3 Interactions Provides Thiogalactoside Derivatives with Single-Digit NM Affinity and High Selectivity. *J. Med. Chem.* **2018**, 61 (3), 1164–1175. <https://doi.org/10.1021/acs.jmedchem.7b01626>.
- Pieters, R. J. Maximising Multivalency Effects in Protein–Carbohydrate Interactions. *Org. Biomol. Chem.* **2009**, 7 (10), 2013. <https://doi.org/10.1039/b901828j>.
- Piñeiro, Á.; Muñoz, E.; Sabín, J.; Costas, M.; Bastos, M.; Velázquez-Campoy, A.; Garrido, P. F.; Dumas, P.; Ennifar, E.; García-Río, L.; Rial, J.; Pérez, D.; Fraga, P.; Rodríguez, A.; Cotelo, C. AFFINImeter: A Software to Analyze Molecular Recognition Processes from Experimental Data. *Anal. Biochem.* **2019**, 577, 117–134. <https://doi.org/10.1016/j.ab.2019.02.031>.
- Reynolds, M.; Pérez, S. Thermodynamics and Chemical Characterization of Protein-Carbohydrate Interactions: The Multivalency Issue. *Comptes Rendus Chim.* **2011**, 14 (1), 74–95. <https://doi.org/10.1016/j.crci.2010.05.020>.
- Rich, R. L.; Myszka, D. G. Survey of the 2009 Commercial Optical Biosensor Literature, **2011** (February), 892–914. <https://doi.org/10.1002/jmr.1138>.
- Roy, R.; Murphy, P. V.; Gabius, H. J. Multivalent Carbohydrate-Lectin Interactions: How Synthetic Chemistry Enables Insights into Nanometric Recognition. *Molecules* **2016**, 21 (5). <https://doi.org/10.3390/molecules21050629>.
- Safina, G. Application of Surface Plasmon Resonance for the Detection of Carbohydrates,

Glycoconjugates, and Measurement of the Carbohydrate-Specific Interactions: A Comparison with Conventional Analytical Techniques. A Critical Review. *Anal. Chim. Acta* **2012**, *712*, 9–29.  
<https://doi.org/10.1016/j.aca.2011.11.016>.

Schlick, K. H.; Cloninger, M. J. Inhibition Binding Studies of Glycodendrimer/Lectin Interactions Using Surface Plasmon Resonance. *Tetrahedron* **2010**, *66* (29), 5305–5310.  
<https://doi.org/10.1016/j.tet.2010.05.038>.

Sicard, D.; Cecioni, S.; Iazykov, M.; Chevrolot, Y.; Matthews, S. E.; Praly, J. P.; Souteyrand, E.; Imbert, A.; Vidal, S.; Phaner-Goutorbe, M. AFM Investigation of *Pseudomonas Aeruginosa* Lectin LecA (PA-IL) Filaments Induced by Multivalent Glycoclusters. *Chem. Commun.* **2011**, *47* (33), 9483–9485. <https://doi.org/10.1039/c1cc13097h>.

Shinohara, Y.; Hasegawa, Y.; Kaku, H. Elucidation of the Mechanism Enhancing the Avidity of Lectin with Oligosaccharides on the Solid Phase Surface. *1997*, *7* (8), 1201–1208.

Sörme, P.; Kahl-Knutsson, B.; Huflejt, M.; Nilsson, U. J.; Leffler, H. Fluorescence Polarization as an Analytical Tool to Evaluate Galectin-Ligand Interactions. *Anal. Biochem.* **2004**, *334* (1), 36–47.  
<https://doi.org/10.1016/j.ab.2004.06.042>.

Stegmayr, J.; Lepur, A.; Kahl-Knutson, B.; Aguilar-Moncayo, M.; Klyosov, A. A.; Field, R. A.; Oredsson, S.; Nilsson, U. J.; Leffler, H. Low or No Inhibitory Potency of the Canonical Galectin Carbohydrate-Binding Site by Pectins and Galactomannans. *J. Biol. Chem.* **2016**, *291* (25), 13318–13334.  
<https://doi.org/10.1074/jbc.M116.721464>.

Sumner, J. B.; Howell, S. F. Identification of Hemagglutinin of Jack Bean with Concanavalin A. *J. Bacteriol.* **1936**, *32* (2), 227–237. <https://doi.org/10.1128/jb.32.2.227-237.1936>.

Tian, X.; Angioletti-Uberti, S.; Battaglia, G. On the Design of Precision Nanomedicines. *Sci. Adv.* **2020**, *6* (4), 1–12. <https://doi.org/10.1126/sciadv.aat0919>.

Tjandra, K. C.; Thordarson, P. Multivalency in Drug Delivery-When Is It Too Much of a Good Thing? *Bioconjug. Chem.* **2019**, *30* (3), 503–514. <https://doi.org/10.1021/acs.bioconjchem.8b00804>.

Tonge, P. J. Drug-Target Kinetics in Drug Discovery. *ACS Chem. Neurosci.* **2018**, *9* (1), 29–39.  
<https://doi.org/10.1021/acschemneuro.7b00185>.

Varrot, A. Blanchard, A. I. Lectin Binding and Its Structural Basis. *Carbohydr. Recognit. Biol. Probl. Methods, Appl.* **2011**, No. 13, 329–347.

Velàzquez-Campoy,A. H. Ohtaka, A. Nezami, S. Muzammil, and E. F. Isothermal Titration Calorimetry. *Curr. Protoc. Cell Biol.* **2004**, No. 17.8, 1–24. <https://doi.org/10.1002/0471143030.cb1708s23>.

Wang, D.; Liu, S.; Trummer, B. J.; Deng, C.; Wang, A. Carbohydrate Microarrays for the Recognition of Cross-Reactive Molecular Markers of Microbes and Host Cells. *2002*, *20* (March), 275–281.

Walker, J. M.; Fotinopoulou, A.; Turner, G. A. Glycoprofiling Purified Glycoproteins Using Surface Plasmon Resonance. *Protein Protoc. Handbook*, **2003**, No. 5, 885–892. <https://doi.org/10.1385/1->

---

59259-169-8:885.

Wolfenden, M. L.; Cloninger, M. J. Multivalency in Carbohydrate Binding. *Carbohydr. Recognit. Biol. Probl. Methods, Appl.* **2011**, 349–370. <https://doi.org/10.1002/9781118017586.ch14>.

Wood, R. W. On a Remarkable Case of Uneven Distribution of Light in a Diffraction Grating Spectrum. *Philos. Mag. Ser. 6* **1902**, 4:21, 396–402.

Yu, G.; Vicini, A. C.; Pieters, R. J. Assembly of Divalent Ligands and Their Effect on Divalent Binding to *Pseudomonas Aeruginosa* Lectin LecA. *J. Org. Chem.* **2019**, 84 (5), 2470–2488.  
<https://doi.org/10.1021/acs.joc.8b02727>.

## Category

1. News