

Title (en)

USING MACHINE LEARNING TO OPTIMIZE ASSAYS FOR SINGLE CELL TARGETED SEQUENCING

Title (de)

VERWENDUNG VON MASCHINENLERNEN ZUR OPTIMIERUNG VON TESTS FÜR ZIELGERICHTETE EINZELZELLSEQUENZIERUNG

Title (fr)

UTILISATION DE L'APPRENTISSAGE AUTOMATIQUE POUR OPTIMISER DES DOSAGES DE SÉQUENÇAGE CIBLÉ UNICELLULAIRE

Publication

EP 4107256 A4 20240320 (EN)

Application

EP 21756618 A 20210221

Priority

- US 202062979840 P 20200221
- US 2020043154 W 20200722
- US 2021018944 W 20210221

Abstract (en)

[origin: WO2021168383A1] Disclosed herein is an amplicon design workflow for improving the design of amplicons such that panels including newly designed amplicons can achieve improved performance (e.g., improved panel uniformity). The amplicon design workflow involves performing a feature selection process to identify key amplicon attributes that likely lead to improved amplicon performance. Therefore, improved amplicons can be designed based on these key attributes. A sequencing panel, such as a DNA sequencing panel or RNA sequencing panel can be constructed using these improved amplicons and further validated. Thus, such panels including improved amplicons can be deployed for analyzing single cells e.g., through a single cell workflow analysis, for characterizing the cells for nucleic acid events, such as the presence or absence of RNA fusion transcripts.

IPC 8 full level

C12N 5/10 (2006.01); **C12N 15/113** (2010.01); **C12N 15/86** (2006.01); **C12Q 1/6827** (2018.01); **C12Q 1/6886** (2018.01); **G16B 30/00** (2019.01); **G16B 35/10** (2019.01); **G16B 40/20** (2019.01)

CPC (source: EP)

C12Q 1/6886 (2013.01); **G16B 30/00** (2019.02); **G16B 35/10** (2019.02); **G16B 40/20** (2019.02); **C12Q 2600/156** (2013.01); **G16B 35/20** (2019.02)

Citation (search report)

- [XY] US 2019309365 A1 20191010 - BABIARZ JOSHUA [US], et al
- [A] EP 2101275 A1 20090916 - KONINKL PHILIPS ELECTRONICS NV [NL]
- [YA] BROWN J T ET AL: "Establishment of a standardized multiplex assay with the analytical performance required for quantitative measurement of BCR-ABL1 on the international reporting scale", BLOOD CANCER JOURNAL, vol. 1, no. 3, 25 March 2011 (2011-03-25), GB, pages e13 - e13, XP093127668, ISSN: 2044-5385, Retrieved from the Internet <URL:<http://www.nature.com/articles/bcj201110>> [retrieved on 20240206], DOI: 10.1038/bcj.2011.10
- [YA] WILLIAMS HANNAH L ET AL: "Validation of the Oncomine(TM)focus panel for next-generation sequencing of clinical tumour samples", VIRCHOWS ARCHIV, SPRINGER BERLIN HEIDELBERG, BERLIN/HEIDELBERG, vol. 473, no. 4, 13 August 2018 (2018-08-13), pages 489 - 503, XP036603112, ISSN: 0945-6317, [retrieved on 20180813], DOI: 10.1007/S00428-018-2411-4
- See also references of WO 2021168383A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2021168383 A1 20210826; EP 4107256 A1 20221228; EP 4107256 A4 20240320

DOCDB simple family (application)

US 2021018944 W 20210221; EP 21756618 A 20210221